GenCore version 5.1.4_p5_4578

OM protein - protein search, using sw model

Run on: April 24, 2003, 16:13:12 ; Search time 31.5082 Seconds
(without alignments)
393.304 Million cell updates/sec

Title: US-09-975-502A-5
Perfect score: 475
Sequence: 1 MKLLMVLMLAALSQHCYAGS.....LSNVEVFMQLIYDSSLCDLF 93

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_101002:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	475	100.0	93	18	AAW10179	Mammary-specific s
2	475	100.0	93	19	AAW59777	Amino acid sequenc
3	475	100.0	93	19	AAW48432	Mammaglobin protei
4	475	100.0	93	20	AAY01718	Mammaglobin, a mam
5	475	100.0	93	21	AAB13786	Human mammaglobin.
6	475	100.0	93	21	AAY84622	Amino acid sequenc
7	475	100.0	93	22	AAE07517	Human mammaglobin
8	475	100.0	93	22	AAB51127	Human mammaglobin
9	475	100.0	410	22	AAU33359	Human breast cance
10	475	100.0	743	22	AAU33358	Human breast cance
11	475	100.0	1095	22	AAU33357	Human breast cance
12	474	99.8	93	22	AAE07531	Human mammaglobin
13	471	99.2	93	22	AAE07534	Human mammaglobin
14	471	99.2	93	22	AAE07535	Human mammaglobin
15	471	99.2	93	22	AAE07536	Human mammaglobin
16	468	98.5	93	22	AAE07529	Human mammaglobin
17	466	98.1	93	22	AAE07532	Human mammaglobin
18	463	97.5	93	22	AAE07530	Human mammaglobin
19	463	97.5	93	22	AAE07533	Human mammaglobin
20	448.5	94.4	90	22	AAE07528	Human mammaglobin
21	448.5	94.4	90	22	AAE07537	Human mammaglobin
22	380	80.0	74	21	AAY84624	Amino acid sequenc
23	380	80.0	220	22	AAO22141	Ra12-mammaglobin f
24	281	59.2	95	18	AAW35804	Human endometrial
25	281	59.2	95	20	AAY02590	A human mammoglobi
26	281	59.2	95	21	AAB03769	Human endometrial
27	281	59.2	95	21	AAY92226	Human endometrial
28	281	59.2	95	21	AAY92237	Mammoglobin homolo
29	281	59.2	95	21	AAY65394	Human 5' EST relat
30	281	59.2	95	22	AAB31682	An endometrial spe
31	281	59.2	95	23	AAO20555	Protein of human L
32	281	59.2	95	23	ABB09635	Human endometrial
33	281	59.2	108	20	AAY60038	Human endometrium
34	272	57.3	93	23	AAU83620	Human PRO protein,
35	208	43.8	74	19	AAW61649	Non-ocular disease
36	170	35.8	33	19	AAW48433	Mammaglobin synthe
37	157	33.1	30	19	AAW48435	Mammaglobin synthe
38	137	28.8	27	19	AAW48434	Mammaglobin synthe
39	117	24.6	23	22	AAB51136	Human mammaglobin
40	114	24.0	21	22	AAB51114	Human mammaglobin
41	114	24.0	21	22	AAB51124	Mammaglobin monocl
42	114	24.0	21	22	AAB51126	Mammaglobin monocl
43	113	23.8	22	19	AAW48441	Mammaglobin synthe
44	108	22.7	20	22	AAB51130	Human mammaglobin
45	106	22.3	20	22	AAB51134	Human mammaglobin

ALIGNMENTS

RESULT 1
AAW10179
ID AAW10179 standard; Protein; 93 AA.
XX
AC AAW10179;
XX
DT 12-AUG-1997 (first entry)
XX
DE Mammary-specific secretory protein, mammaglobin.
XX
KW mammaglobin; mammary-secretory protein; breast cancer; detection;
KW neoplastic disease; diagnosis.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..19
FT /label= signal_peptide
FT Protein 20..93
FT /label= mature_protein
XX
PN WO9638463-A1.
XX
PD 05-DEC-1996.
XX
PF 31-MAY-1996; 96WO-US08235.
XX
PR 31-MAY-1995; 95US-0455896.
XX
PA (UNIW) UNIV WASHINGTON.
XX
PI Fleming TP, Watson MA;
XX

```
DR   WPI; 1997-034299/03.
DR   N-PSDB; AAT50925.
XX
PT   Nucleic acid encoding mammary-specific secretory protein,
PT   mammaglobin - used to develop prods. for the early diagnosis and
PT   treatment of breast cancer neoplastic disease
XX
PS   Claim 3; Fig 2; 54pp; English.
XX
CC   The present sequence is that of a mammary-specific secretory protein
CC   designated mammaglobin, which is overexpressed in 27% of stage I primary
CC   breast cancer tumours. The anonymous sequence tag previously designated
CC   DEST002 was used to demonstrate that mammaglobin is abundant in the
CC   breast cancer tumour cell line MDA-MB-415. To isolate the full-length
CC   mammaglobin cDNA (AAT50925), the mRNA was reverse transcribed from
CC   this cell line and cloned using the RACE PCR technique. The nucleic acid
CC   and protein can be used to develop prods. e.g. antibodies or probes, for
CC   the detection and treatment of breast neoplastic disease.
XX
SQ   Sequence   93 AA;

  Query Match           100.0%;  Score 475;  DB 18;  Length 93;
  Best Local Similarity  100.0%;  Pred. No. 2.9e-47;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
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Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
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Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 2
AAW59777
ID   AAW59777 standard; Protein; 93 AA.
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AC   AAW59777;
XX
DT   12-OCT-1998  (first entry)
XX
DE   Amino acid sequence of the human steroid binding protein C2.
XX
KW   Human steroid-binding protein C2; hSBP2; hSBP1; breast cancer; probe;
KW   gene therapy vector; ribozyme; probe; hybridisation; amplification;
KW   antibody; immunoassay.
XX
OS   Homo sapiens.
XX
PN   WO9821331-A1.
X
PD   22-MAY-1998.
XX
PF   07-NOV-1997;   97WO-US20674.
XX
PR   12-NOV-1996;   96US-0747547.
XX
PA   (INCY-) INCYTE PHARM INC.
XX
PI   Akerblom IE,  Goli SK,  Hawkins PR,  Hillman JL,  Murry LE;
XX
DR   WPI; 1998-297935/26.
DR   N-PSDB; AAV41580.
XX
PT   New human steroid binding proteins C1 and C2 - useful for, e.g.
PT   diagnosis, monitoring and treating breast cancer, and for drug
PT   screening
XX
PS   Claim 12; Fig 2; 70pp; English.
XX
CC   This is the amino acid sequence of the human steroid-binding protein
CC   C2 (hSBP2) used in the method of the invention for the diagnosis,
CC   monitoring and treatment of breast cancer.  HSBP1 and hSBP2 are useful
CC   as markers for breast cancer, i.e. measuring levels of hSBP1 and hSBP2
CC   used for diagnosis or monitoring the disease, to identify subjects
CC   at risk and to discriminate between different forms of cancer for
CC   selection of appropriate therapies.  They may also be used for drug
CC   screening.  Nucleic acids encoding hSBP1 and hSBP2 can be used in gene
CC   therapy vectors to over express the steroid-binding proteins, preventing
CC   binding of steroids, or antisense sequences, ribozymes.  Their nucleic
CC   acids can also be used for the diagnosis and monitoring (by quantifying
CC   expression of hSBP), as source of probes for hybridisation and
CC   amplification of genomic or related sequences for studying regulation of
CC   gene function and for mapping the genomic sequence.  Antibodies are used
CC   as diagnostic reagents in standard immunoassays for hSBP.
XX
SQ   Sequence   93 AA;

  Query Match           100.0%;  Score 475;  DB 19;  Length 93;
  Best Local Similarity  100.0%;  Pred. No. 2.9e-47;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
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RESULT 3
AAW48432
ID   AAW48432 standard; Protein; 93 AA.
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AC   AAW48432;
XX
DT   13-JUL-1998  (first entry)
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DE   Mammaglobin protein.
XX
KW   Mammaglobin; detection; diagnosis; breast cancer; tumour; antibody;
KW   gene therapy; human.
XX
OS   Homo sapiens.
XX
PN   WO9807753-A1.
XX
PD   26-FEB-1998.
XX
PF   19-AUG-1997;   97WO-US14666.
XX
PR   15-AUG-1997;   97US-0697106.
PR   19-AUG-1996;   96US-0697106.
XX
PA   (ABBO ) ABBOTT LAB.
XX
PI   Billing-Medel PA,  Cohen M,  Colpitts TL,  Friedman PN;
PI   Gordon J,  Granados EN,  Hodges SC,  Klass MR,  Kratochvil JD;
PI   Roberts-Rapp L,  Russell JC,  Stroupe SD;
XX
DR   WPI; 1998-169096/15.
DR   N-PSDB; AAV17905, AAV17906.
XX
PT   Antibodies to mammaglobin polypeptide(s) - used for detecting,
PT   diagnosing, preventing or treating diseases or conditions of breast
PT   such as breast cancer
XX
PS   Claim 8; Page 92; 105pp; English.
XX
CC   The present sequence represents mammaglobin which is used in an example
CC   of the present invention. The present invention describes an antibody
CC   (A) which specifically binds to at least 1 mammaglobin epitope (ME) which
CC   is derived from an amino acid sequence having at least 50% identity to
CC   an amino acid sequence (see AAW48432) and fragments. Also described are:
```

OM protein - protein search, using sw model

Run on: April 24, 2003, 16:13:12 ; Search time 31.5082 Seconds
(without alignments)
393.304 Million cell updates/sec

Title: US-09-975-502A-5
Perfect score: 475
Sequence: 1 MKLLMVLMLAALSQHCYAGS.....LSNVEVFMQLIYDSSLCDLF 93

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_101002:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	475	100.0	93	18	AAW10179	Mammary-specific s
2	475	100.0	93	19	AAW59777	Amino acid sequenc
3	475	100.0	93	19	AAW48432	Mammaglobin protei
4	475	100.0	93	20	AAY01718	Mammaglobin, a mam
5	475	100.0	93	21	AAB13786	Human mammaglobin.
6	475	100.0	93	21	AAY84622	Amino acid sequenc
7	475	100.0	93	22	AAE07517	Human mammaglobin
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10	475	100.0	743	22	AAU33358	Human breast cance
11	475	100.0	1095	22	AAU33357	Human breast cance
12	474	99.8	93	22	AAE07531	Human mammaglobin
13	471	99.2	93	22	AAE07534	Human mammaglobin
14	471	99.2	93	22	AAE07535	Human mammaglobin
15	471	99.2	93	22	AAE07536	Human mammaglobin
16	468	98.5	93	22	AAE07529	Human mammaglobin
17	466	98.1	93	22	AAE07532	Human mammaglobin
18	463	97.5	93	22	AAE07530	Human mammaglobin
19	463	97.5	93	22	AAE07533	Human mammaglobin
20	448.5	94.4	90	22	AAE07528	Human mammaglobin
21	448.5	94.4	90	22	AAE07537	Human mammaglobin
22	380	80.0	74	21	AAY84624	Amino acid sequenc
23	380	80.0	220	22	AAO22141	Ral2-mammaglobin f
24	281	59.2	95	18	AAW35804	Human endometrial
25	281	59.2	95	20	AAY02590	A human mammoglobi
26	281	59.2	95	21	AAB03769	Human endometrial
27	281	59.2	95	21	AAY92226	Human endometrial
28	281	59.2	95	21	AAY92237	Mammoglobin homolo
29	281	59.2	95	21	AAY65394	Human 5' EST relat
30	281	59.2	95	22	AAB31682	An endometrial spe
31	281	59.2	95	23	AAO20555	Protein of human L
32	281	59.2	95	23	ABB09635	Human endometrial
33	281	59.2	108	20	AAY60038	Human endometrium
34	272	57.3	93	23	AAU83620	Human PRO protein,
35	208	43.8	74	19	AAW61649	Non-ocular disease
36	170	35.8	33	19	AAW48433	Mammaglobin synthe
37	157	33.1	30	19	AAW48435	Mammaglobin synthe
38	137	28.8	27	19	AAW48434	Mammaglobin synthe
39	117	24.6	23	22	AAB51136	Human mammaglobin
40	114	24.0	21	22	AAB51114	Human mammaglobin
41	114	24.0	21	22	AAB51124	Mammaglobin monocl
42	114	24.0	21	22	AAB51126	Mammaglobin monocl
43	113	23.8	22	19	AAW48441	Mammaglobin synthe
44	108	22.7	20	22	AAB51130	Human mammaglobin
45	106	22.3	20	22	AAB51134	Human mammaglobin

ALIGNMENTS

RESULT 1
AAW10179
ID AAW10179 standard; Protein; 93 AA.
XX
AC AAW10179;
XX
DT 12-AUG-1997 (first entry)
XX
DE Mammary-specific secretory protein, mammaglobin.
XX
KW mammaglobin; mammary-secretory protein; breast cancer; detection;
KW neoplastic disease; diagnosis.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..19
FT /label= signal_peptide
FT Protein 20..93
FT /label= mature_protein
XX
PN WO9638463-A1.
XX
PD 05-DEC-1996.
XX
PF 31-MAY-1996; 96WO-US08235.
XX
PR 31-MAY-1995; 95US-0455896.
XX
PA (UNIW) UNIV WASHINGTON.
XX
PI Fleming TP, Watson MA;
XX

DR WPI; 1997-034299/03.
DR N-PSDB; AAT50925.
XX
PT Nucleic acid encoding mammary-specific secretory protein,
PT mammaglobin - used to develop prods. for the early diagnosis and
PT treatment of breast cancer neoplastic disease
XX
PS Claim 3; Fig 2; 54pp; English.
XX
CC The present sequence is that of a mammary-specific secretory protein
CC designated mammaglobin, which is overexpressed in 27% of stage I primary
CC breast cancer tumours. The anonymous sequence tag previously designated
CC DEST002 was used to demonstrate that mammaglobin is abundant in the
CC breast cancer tumour cell line MDA-MB-415. To isolate the full-length
CC mammaglobin cDNA (AAT50925), the mRNA was reverse transcribed from
CC this cell line and cloned using the RACE PCR technique. The nucleic acid
CC and protein can be used to develop prods. e.g. antibodies or probes, for
CC the detection and treatment of breast neoplastic disease.
XX
SQ Sequence 93 AA;

Query Match 100.0%; Score 475; DB 18; Length 93;
st Local Similarity 100.0%; Pred. No. 2.9e-47;
ches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
Db 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
Db 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93

RESULT 2
AAW59777
ID AAW59777 standard; Protein; 93 AA.
XX
AC AAW59777;
XX
DT 12-OCT-1998 (first entry)
XX
DE Amino acid sequence of the human steroid binding protein C2.
XX
KW Human steroid-binding protein C2; hSBP2; hSBP1; breast cancer; probe;
KW gene therapy vector; ribozyme; probe; hybridisation; amplification;
KW antibody; immunoassay.
XX
OS Homo sapiens.
XX
PN WO9821331-A1.
X
PD 22-MAY-1998.
XX
PF 07-NOV-1997; 97WO-US20674.
XX
PR 12-NOV-1996; 96US-0747547.
XX
PA (INCY-) INCYTE PHARM INC.
XX
PI Akerblom IE, Goli SK, Hawkins PR, Hillman JL, Murry LE;
XX
DR WPI; 1998-297935/26.
DR N-PSDB; AAV41580.
XX
PT New human steroid binding proteins C1 and C2 - useful for, e.g.
PT diagnosis, monitoring and treating breast cancer, and for drug
PT screening
XX
PS Claim 12; Fig 2; 70pp; English.
XX
CC This is the amino acid sequence of the human steroid-binding protein
CC C2 (hSBP2) used in the method of the invention for the diagnosis,
CC monitoring and treatment of breast cancer. HSBP1 and hSBP2 are useful
CC as markers for breast cancer, i.e. measuring levels of hSBP1 and hSBP2
CC used for diagnosis or monitoring the disease, to identify subjects
CC at risk and to discriminate between different forms of cancer for
CC selection of appropriate therapies. They may also be used for drug
CC screening. Nucleic acids encoding hSBP1 and hSBP2 can be used in gene
CC therapy vectors to over express the steroid-binding proteins, preventing
CC binding of steroids, or antisense sequences, ribozymes. Their nucleic
CC acids can also be used for the diagnosis and monitoring (by quantifying
CC expression of hSBP), as source of probes for hybridisation and
CC amplification of genomic or related sequences for studying regulation of
CC gene function and for mapping the genomic sequence. Antibodies are used
CC as diagnostic reagents in standard immunoassays for hSBP.
XX
SQ Sequence 93 AA;

Query Match 100.0%; Score 475; DB 19; Length 93;
Best Local Similarity 100.0%; Pred. No. 2.9e-47;
Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
Db 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
Db 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93

RESULT 3
AAW48432
ID AAW48432 standard; Protein; 93 AA.
XX
AC AAW48432;
XX
DT 13-JUL-1998 (first entry)
XX
DE Mammaglobin protein.
XX
KW Mammaglobin; detection; diagnosis; breast cancer; tumour; antibody;
KW gene therapy; human.
XX
OS Homo sapiens.
XX
PN WO9807753-A1.
XX
PD 26-FEB-1998.
XX
PF 19-AUG-1997; 97WO-US14666.
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PR 15-AUG-1997; 97US-0697106.
PR 19-AUG-1996; 96US-0697106.
XX
PA (ABBO) ABBOTT LAB.
XX
PI Billing-Medel PA, Cohen M, Colpitts TL, Friedman PN;
PI Gordon J, Granados EN, Hodges SC, Klass MR, Kratochvil JD;
PI Roberts-Rapp L, Russell JC, Stroupe SD;
XX
DR WPI; 1998-169096/15.
DR N-PSDB; AAV17905, AAV17906.
XX
PT Antibodies to mammaglobin polypeptide(s) - used for detecting,
PT diagnosing, preventing or treating diseases or conditions of breast
PT such as breast cancer
XX
PS Claim 8; Page 92; 105pp; English.
XX
CC The present sequence represents mammaglobin which is used in an example
CC of the present invention. The present invention describes an antibody
CC (A) which specifically binds to at least 1 mammaglobin epitope (ME) which
CC is derived from an amino acid sequence having at least 50% identity to
CC an amino acid sequence (see AAW48432) and fragments. Also described are:

```
CC   (1) an assay kit for determining the presence of mammaglobin antigen (MA)
CC   in a test sample, comprising a container containing an antibody as in
CC   (A); (2) a method for producing antibodies which specifically bind to a
CC   MA, comprising administering an isolated immunogenic polypeptide or
CC   fragment to elicit an immune response, where the immunogenic polypeptide
CC   comprises at least 1 ME and has at least 50% identity to a sequence
CC   (see AAW48432) and fragments, and (3) a method for producing antibodies
CC   which specifically bind to a MA comprising administering to a mammal a
CC   plasmid comprising a sequence which encodes at least 1 ME derived from a
CC   polypeptide having an amino acid sequence (see AAW48432) and fragments.
CC   The products and methods can be used for detecting, diagnosing, staging,
CC   monitoring, prognosticating, preventing or treating, or determining
CC   predisposition to diseases or conditions of the breast such as breast
CC   cancer.
XX
SQ   Sequence   93 AA;

    iery Match            100.0%;  Score 475;  DB 19;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-47;.
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 4
AAY01718
ID   AAY01718 standard; Protein; 93 AA.
XX
AC   AAY01718;
XX
DT   25-JUN-1999  (first entry)
XX
DE   Mammaglobin, a mammary specific protein.
XX
KW   Human; mammary-specific protein; mammaglobin; antigen; vaccine;
KW   mammaglobin-expressing cancer; breast cancer;
KW   autologous tumor lymphocyte; diagnosis; marker.
XX
     Homo sapiens.

     WO9914230-A1.
XX
PD   25-MAR-1999.
XX
PF   18-SEP-1998;   98WO-US17991.
XX
PR   18-SEP-1997;   97US-0933149.
XX
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Fleming TP,  Watson MA;
XX
DR   WPI; 1999-244021/20.
DR   N-PSDB; AAX26966.
XX
PT   Mammaglobin, secreted protein overexpressed in breast cancer
XX
PS   Claim 15; Fig 2; 60pp; English.
XX
CC   The present sequence represents a human mammary-specific protein,
CC   designated mammaglobin. The specification describes a protein
CC   comprising a mammaglobin antigen that is recognized by B and/or
CC   Tc cells specific for the natural, secreted and glycosylated form
CC   of mammaglobin polypeptide. This protein, or recombinant vectors
CC   that express it, are used in vaccines for treating mammaglobin-
CC   expressing cancers, specifically of the breast. Such cancers can
CC   also be treated using autologous tumor lymphocytes activated
CC   ex vivo with an mammaglobin antigen, then returned to the
CC   patient. Expression of mammaglobin is elevated in 27% of stage I
CC   primary breast cancers, so it represents a marker useful for
CC   diagnosis of this disease.
XX
SQ   Sequence   93 AA;

  Query Match             100.0%;  Score 475;  DB 20;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-47;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 5
AAB13786
ID   AAB13786 standard; Protein; 93 AA.
XX
AC   AAB13786;
XX
DT   20-JUN-2001  (first entry)
XX
DE   Human mammaglobin.
XX
KW   Human; breast cancer; breast disease detection; mammaglobin;
KW   uteroglobin; chromosome 11q13; BU101; endometrial; cytostatic.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   53
FT                   /note= "Optionally N-glycosylated"
FT   Modified-site   68
FT                   /note= "Optionally N-glycosylated"
XX
PN   WO200035950-A2.
XX
PD   22-JUN-2000.
XX
PF   20-DEC-1999;   99WO-US30489.
XX
PR   18-DEC-1998;   98US-0215818.
XX
PA   (ABBO ) ABBOTT LAB.
XX
PI   Colpitts TL,  Russell JE;
XX
DR   WPI; 2000-442366/38.
DR   N-PSDB; AAA64845.
XX
PT   Multimeric polypeptide antigen and antibody specific to the antigen are
PT   useful for diagnosing, detecting and treating breast cancer -
XX
PS   Claim 1; Pages 123-124; 124pp; English.
XX
CC   Mammaglobin is a member of the uteroglobin protein family. The
CC   mammaglobin gene has been localised to chromosome 11q13. The present
CC   sequence is the protein sequence for human mammaglobin. The present
CC   invention relates to a multimeric polypeptide antigen, which comprises
CC   of the present sequence and BU101 polypeptide (AAB13787). BU101 is
CC   another uteroglobin protein. The presence of multimeric polypeptide
CC   antigen in a test sample can be used as the basis for a test to diagnose
CC   breast disease e.g. breast cancer, in a patient. The detection can be
CC   carried out using antibodies specific for the multimeric polypeptide
CC   antigen.
XX
SQ   Sequence   93 AA;
```

```
  Query Match             100.0%;  Score 475;  DB 21;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-47;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
```

RESULT 6
AAY84622
ID AAY84622 standard; Protein; 93 AA.
XX
AC AAY84622;
XX
DT 25-JUL-2000 (first entry)
XX
DE Amino acid sequence of the mammary-specific protein mammaglobin.
XX
KW Human; mammaglobin; mammary gland; breast cancer; endometrial cancer.
XX
OS Homo sapiens.
XX
PN WO200018783-A1.
XX
PD 06-APR-2000.
XX
PF 29-SEP-1999; 99WO-US22616.
XX
PR 29-SEP-1998; 98US-0162622.
XX
PA (UNIW) UNIV WASHINGTON.
XX
PI Watson MA, Fleming TP;
XX
DR WPI; 2000-293105/25.
DR N-PSDB; AAA12632.
XX
PT Methods for detecting breast cancer, comprising detecting elevated
PT concentrations of a mammaglobin polypeptide, using an antibody, or
PT detecting elevated concentrations of the mRNA encoding the polypeptide,
PT using oligonucleotides -
XX
PS Example 1; Fig 2; 71pp; English.
XX
CC The present sequence represents the human mammary-specific secreted
CC protein mammaglobin. Mammaglobin expression is restricted to the
CC mammary gland. Dysregulation of the mammaglobin gene occurs early
CC and frequently in breast cancer. The specification describes a method
CC for detecting the presence of breast cancer in a patient, comprising
CC detecting an elevated concentration of mRNA encoding a mammaglobin
CC polypeptide. The methods are useful for detecting the presence of
CC breast and endometrial cancer.
XX
SQ Sequence 93 AA;

```
  Query Match             100.0%;  Score 475;  DB 21;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-47;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
```

RESULT 7
AAE07517
ID AAE07517 standard; Protein; 93 AA.
XX
AC AAE07517;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human mammaglobin protein.
XX
KW Human; mammaglobin; lipophilin; cytostatic; vaccine; gene therapy;
KW uteroglobin; cancer; breast; ovary; prostate.
XX
OS Homo sapiens.
XX
PN WO200158947-A1.
XX
PD 16-AUG-2001.
XX
PF 08-FEB-2001; 2001WO-US04439.
XX
PR 11-FEB-2000; 2000US-0183495.
PR 28-JUN-2000; 2000US-0215735.
XX
PA (CORI-) CORIXA CORP.
XX
PI Carter D, Vedvick TS, Vallieve-Douglass J, Houghton RL, Dillon DC;
XX
DR WPI; 2001-497069/54.
DR N-PSDB; AAD13755.
XX
PT Novel isolated complex two lipophilin-like polypeptides linked by at
PT least one disulfide bond, used to treat or prevent breast, ovarian or
PT prostate cancer -
XX
PS Example 5; Page 72; 91pp; English.
XX
CC The invention relates to a complex comprising a lipophilin-like
CC polypeptide linked by at least one disulphide bond to a second
CC lipophilin-like polypeptide. Lipophilin-like protein are members of
CC uteroglobin superfamily. Lipophilin-like proteins are useful in the
CC preparation of vaccines. The complex containing lipophilin-like
CC proteins are useful for treating or preventing breast, ovarian or
CC prostate cancer. The complex is also used for determining the
CC presence or absence of cancer in a patient, or monitor the progress
CC of cancer in a patient. Lipophilin DNA is also useful in gene therapy.
CC The present sequence is human mammaglobin which is a lipophilin-like
CC protein.
XX
SQ Sequence 93 AA;

```
  Query Match             100.0%;  Score 475;  DB 22;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-47;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
```

RESULT 8
AAB51127
ID AAB51127 standard; Protein; 93 AA.
XX
AC AAB51127;
XX
DT 20-MAR-2001 (first entry)
XX

DE Human mammaglobin amino acid sequence SEQ ID NO:27.
XX
KW Human; mammaglobin; breast cancer; detection; diagnosis; antibody;
KW vaccine; cytostatic; antimammaglobin.
XX
OS Homo sapiens.
XX
PN WO200073338-A1.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14845.
XX
PR 28-MAY-1999; 99US-0136528.
PR 01-JUN-1999; 99US-0137048.
XX
(CORI-) CORIXA CORP.
(HEND/) HENDRICKSON R C.
... (HOUG/) HOUGHTON R L.
PA (REED/) REED S G.
XX
PI Fanger GR;
XX
DR WPI; 2001-049928/06.
XX
PT Polypeptide comprising at least seven consecutive amino acid residues
PT of human mammaglobin, useful in the treatment and detection of breast
PT cancer -
XX
PS Example 1; Fig 2; 109pp; English.
XX
CC The present invention describes human mammaglobin peptides (I)
CC comprising at least 7 consecutive residues. Also described are: (1) a
CC vaccine comprising (I) with an immunostimulant which is an adjuvant;
CC (2) an isolated antibody (Ab1) or its antigen-binding fragment, which
CC specifically binds to a mammaglobin epitope having the sequence of
CC Pro2-3; (3) an isolated antibody (Ab2) or its antigen-binding fragment
CC that specifically binds to glycosylated mammaglobin; (4) a method for
CC inhibiting the development of breast cancer in a patient, comprising
CC administering (I) or Ab1 or Ab2; and (5) a method (M1) for determining
CC the presence or absence of breast cancer in a patient. (I) has
CC cytostatic activity. The polypeptides and antibodies are used in
CC vaccines for the prevention and treatment of breast cancer. They are
CC also used for diagnosis and monitoring of breast cancer. The present
CC sequence represents the human mammaglobin amino acid sequence, which is
CC used in an example from the present invention.

SQ Sequence 93 AA;

Query Match 100.0%; Score 475; DB 22; Length 93;
Best Local Similarity 100.0%; Pred. No. 2.9e-47;
Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
|||||||||||||||||||||||||||||||||
Db 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93

RESULT 9
AAU33359
ID AAU33359 standard; Protein; 410 AA.
XX
AC AAU33359;
XX
DT 18-DEC-2001 (first entry)
XX
DE Human breast cancer protein B726P fusion protein #3.
XX
KW Human; ss; breast cancer protein; tumour; cancer; cytostatic;
KW gene therapy; immunogen.
XX
OS Homo sapiens.
XX
PN WO200179286-A2.
XX
PD 25-OCT-2001.
XX
PF 12-APR-2001; 2001WO-US12164.
XX
PR 17-APR-2000; 2000US-0551621.
PR 08-JUN-2000; 2000US-0590751.
PR 22-JUN-2000; 2000US-0604287.
PR 20-JUL-2000; 2000US-0620405.
XX
PA (CORI-) CORIXA CORP.
XX
PI Jiang Y, Dillon DC, Mitcham JL, Xu J, Harlocker SL, Hepler WT;
XX
DR WPI; 2001-611721/70.
DR N-PSDB; AAS47423.
XX
PT Breast Tumour Proteins and nucleic acids useful for the prevention,
PT diagnosis and treatment of breast cancer -
XX
PS Claim 24; Page 296-297; 297pp; English.
XX
CC The invention relates to isolated breast tumour proteins and
CC nucleic acids that encode them, including immunogenic fragments of the
CC proteins. Also included are expression vectors expressing the
CC proteins, transformed cells and antibodies raised against the proteins or
CC an antigen presenting cell expressing the protein. The proteins and
CC nucleic acids may be used in the prevention, diagnosis and treatment of
CC diseases associated with inappropriate breast tumour protein expression,
CC i.e. breast tumours and breast cancer e.g by gene therapy. The nucleic
CC acids and their complements may also be used as DNA probes in diagnostic
CC assays to detect and quantitate the presence of similar nucleic acids in
CC samples, and therefore which patients may be in need of restorative
CC therapy. The proteins, nucleic acids and antibodies may be used in assays
CC to identify modulators (e.g. antagonists) of breast tumour protein
CC expression and activity. The antibodies and antagonists may also be used
CC to down regulate expression and activity. The antibodies may also be used
CC as diagnostic agents for detecting the presence of the proteins in
CC samples (e.g. by enzyme linked immunosorbant assay (ELISA)) and in other
CC immuno-purification diagnostic techniques. The present sequence is
CC a breast tumour protein encoded by a cDNA from a breast tumour cDNA
CC library isolated by subtractive hybridisation against a normal breast
CC cDNA library.
XX
SQ Sequence 410 AA;

Query Match 100.0%; Score 475; DB 22; Length 410;
Best Local Similarity 100.0%; Pred. No. 2.2e-46;
Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
|||||||||||||||||||||||||||||||||
Db 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93

RESULT 10
AAU33358
ID AAU33358 standard; Protein; 743 AA.
XX
AC AAU33358;
XX
DT 18-DEC-2001 (first entry)
XX
DE Human breast cancer protein B726P fusion protein #2.

```
XX
KW   Human; ss; breast cancer protein; tumour; cancer; cytostatic;
KW   gene therapy; immunogen.
XX
OS   Homo sapiens.
XX
PN   WO200179286-A2.
XX
PD   25-OCT-2001.
XX
PF   12-APR-2001; 2001WO-US12164.
XX
PR   17-APR-2000; 2000US-0551621.
PR   08-JUN-2000; 2000US-0590751.
PR   22-JUN-2000; 2000US-0604287.
PR   20-JUL-2000; 2000US-0620405.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Jiang Y, Dillon DC, Mitcham JL, Xu J, Harlocker SL, Hepler WT;
XX
DR   WPI; 2001-611721/70.
DR   N-PSDB; AAS47422.
XX
PT   Breast Tumour Proteins and nucleic acids useful for the prevention,
PT   diagnosis and treatment of breast cancer -
XX
PS   Claim 23; Page 295-296; 297pp; English.
XX
CC   The invention relates to isolated breast tumour proteins and
CC   nucleic acids that encode them, including immunogenic fragments of the
CC   proteins. Also included are expression vectors expressing the
CC   proteins, transformed cells and antibodies raised against the proteins or
CC   an antigen presenting cell expressing the protein. The proteins and
CC   nucleic acids may be used in the prevention, diagnosis and treatment of
CC   diseases associated with inappropriate breast tumour protein expression,
CC   i.e. breast tumours and breast cancer e.g by gene therapy. The nucleic
CC   acids and their complements may also be used as DNA probes in diagnostic
CC   assays to detect and quantitate the presence of similar nucleic acids in
CC   samples, and therefore which patients may be in need of restorative
CC   therapy. The proteins, nucleic acids and antibodies may be used in assays
CC   to identify modulators (e.g. antagonists) of breast tumour protein
CC   expression and activity. The antibodies and antagonists may also be used
CC   to down regulate expression and activity. The antibodies may also be used
CC   as diagnostic agents for detecting the presence of the proteins in
CC   samples (e.g. by enzyme linked immunosorbant assay (ELISA)) and in other
CC   immuno-purification diagnostic techniques. The present sequence is
CC   a breast tumour protein encoded by a cDNA from a breast tumour cDNA
CC   library isolated by subtractive hybridisation against a normal breast
CC   cDNA library.
XX
SQ   Sequence   743 AA;

  Query Match             100.0%;  Score 475;  DB 22;  Length 743;
  Best Local Similarity   100.0%;  Pred. No. 5e-46;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 11
AAU33357
ID   AAU33357 standard; Protein; 1095 AA.
XX
AC   AAU33357;
XX
DT   18-DEC-2001  (first entry)
XX
DE   Human breast cancer protein B726P fusion protein #1.
XX
KW   Human; ss; breast cancer protein; tumour; cancer; cytostatic;
KW   gene therapy; immunogen.
XX
OS   Homo sapiens.
XX
PN   WO200179286-A2.
XX
PD   25-OCT-2001.
XX
PF   12-APR-2001; 2001WO-US12164.
XX
PR   17-APR-2000; 2000US-0551621.
PR   08-JUN-2000; 2000US-0590751.
PR   22-JUN-2000; 2000US-0604287.
PR   20-JUL-2000; 2000US-0620405.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Jiang Y, Dillon DC, Mitcham JL, Xu J, Harlocker SL, Hepler WT;
XX
DR   WPI; 2001-611721/70.
DR   N-PSDB; AAS47421.
XX
PT   Breast Tumour Proteins and nucleic acids useful for the prevention,
PT   diagnosis and treatment of breast cancer -
XX
PS   Claim 22; Page 292-295; 297pp; English.
XX
CC   The invention relates to isolated breast tumour proteins and
CC   nucleic acids that encode them, including immunogenic fragments of the
CC   proteins. Also included are expression vectors expressing the
CC   proteins, transformed cells and antibodies raised against the proteins or
CC   an antigen presenting cell expressing the protein. The proteins and
CC   nucleic acids may be used in the prevention, diagnosis and treatment of
CC   diseases associated with inappropriate breast tumour protein expression,
CC   i.e. breast tumours and breast cancer e.g by gene therapy. The nucleic
CC   acids and their complements may also be used as DNA probes in diagnostic
CC   assays to detect and quantitate the presence of similar nucleic acids in
CC   samples, and therefore which patients may be in need of restorative
CC   therapy. The proteins, nucleic acids and antibodies may be used in assays
CC   to identify modulators (e.g. antagonists) of breast tumour protein
CC   expression and activity. The antibodies and antagonists may also be used
CC   to down regulate expression and activity. The antibodies may also be used
CC   as diagnostic agents for detecting the presence of the proteins in
CC   samples (e.g. by enzyme linked immunosorbant assay (ELISA)) and in other
CC   immuno-purification diagnostic techniques. The present sequence is
CC   a breast tumour protein encoded by a cDNA from a breast tumour cDNA
CC   library isolated by subtractive hybridisation against a normal breast
CC   cDNA library.
XX
SQ   Sequence   1095 AA;

  Query Match             100.0%;  Score 475;  DB 22;  Length 1095;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-46;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 12
AAE07531
ID   AAE07531 standard; Protein; 93 AA.
XX
AC   AAE07531;
```

```
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human mammaglobin S11 3 4 61563.2 protein.
XX
KW   Human; lipophilin B; cytostatic; vaccine; mammaglobin S11 3 4 61563.2;
KW   gene therapy; uteroglobin; cancer; breast; ovary; prostate.
XX
OS   Homo sapiens.
XX
PN   WO200158947-A1.
XX
PD   16-AUG-2001.
XX
PF   08-FEB-2001; 2001WO-US04439.
XX
     11-FEB-2000; 2000US-0183495.
     28-JUN-2000; 2000US-0215735.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Carter D,  Vedvick TS,  Vallieve-Douglass J,  Houghton RL,  Dillon DC;
XX
DR   WPI; 2001-497069/54.
DR   N-PSDB; AAD13775.
XX
PT   Novel isolated complex two lipophilin-like polypeptides linked by at
PT   least one disulfide bond, used to treat or prevent breast, ovarian or
PT   prostate cancer -
XX
PS   Example 5; Page 79; 91pp; English.
XX
CC   The invention relates to a complex comprising a lipophilin-like
CC   polypeptide linked by at least one disulphide bond to a second
CC   lipophilin-like polypeptide. Lipophilin-like protein are members of
CC   uteroglobin superfamily. Lipophilin-like proteins are useful in the
CC   preparation of vaccines. The complex containing lipophilin-like
CC   proteins are useful for treating or preventing breast, ovarian or
CC   prostate cancer. The complex is also used for determining the
CC   presence or absence of cancer in a patient, or monitor the progress
CC   of cancer in a patient. Lipophilin DNA is also useful in gene therapy.
CC   The present sequence is human mammaglobin S11 3 4 61563.2 which is
CC   a lipophilin-like protein.
XX
SQ   Sequence   93 AA;

  Query Match             99.8%;  Score 474;  DB 22;  Length 93;
  Best Local Similarity   98.9%;  Pred. No. 3.8e-47;
  Matches   92;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
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Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFVDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
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Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 13
AAE07534
ID   AAE07534 standard; Protein; 93 AA.
XX
AC   AAE07534;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human mammaglobin variant #1.
XX
KW   Human; lipophilin B; cytostatic; vaccine; mammaglobin; variant; mutant;
KW   gene therapy; uteroglobin; cancer; breast; ovary; prostate; mutein.
XX
OS   Homo sapiens.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /note= "Wild type Met substituted with Ile"
XX
PN   WO200158947-A1.
XX
PD   16-AUG-2001.
XX
PF   08-FEB-2001; 2001WO-US04439.
XX
PR   11-FEB-2000; 2000US-0183495.
PR   28-JUN-2000; 2000US-0215735.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Carter D,  Vedvick TS,  Vallieve-Douglass J,  Houghton RL,  Dillon DC;
XX
DR   WPI; 2001-497069/54.
DR   N-PSDB; AAD13780.
XX
PT   Novel isolated complex two lipophilin-like polypeptides linked by at
PT   least one disulfide bond, used to treat or prevent breast, ovarian or
PT   prostate cancer -
XX
PS   Example 6; Page 87; 91pp; English.
XX
CC   The invention relates to a complex comprising a lipophilin-like
CC   polypeptide linked by at least one disulphide bond to a second
CC   lipophilin-like polypeptide. Lipophilin-like protein are members of
CC   uteroglobin superfamily. Lipophilin-like proteins are useful in the
CC   preparation of vaccines. The complex containing lipophilin-like
CC   proteins are useful for treating or preventing breast, ovarian or
CC   prostate cancer. The complex is also used for determining the
CC   presence or absence of cancer in a patient, or monitor the progress
CC   of cancer in a patient. Lipophilin DNA is also useful in gene therapy.
CC   The present sequence is human mammaglobin variant which is obtained by
CC   replacing the first amino acid Met to Ile. Mammaglobin is a lipophilin-
CC   like protein.
XX
SQ   Sequence   93 AA;

  Query Match             99.2%;  Score 471;  DB 22;  Length 93;
  Best Local Similarity   98.9%;  Pred. No. 8.5e-47;
  Matches   92;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           :||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 IKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 14
AAE07535
ID   AAE07535 standard; Protein; 93 AA.
XX
AC   AAE07535;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human mammaglobin variant #2.
XX
KW   Human; lipophilin B; cytostatic; vaccine; mammaglobin; variant; mutant;
KW   gene therapy; uteroglobin; cancer; breast; ovary; prostate; mutein.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
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FT   Misc-difference 73
FT                   /note= "Wild type Thr substituted with Ser"
XX
PN   WO200158947-A1.
XX
PD   16-AUG-2001.
XX
PF   08-FEB-2001; 2001WO-US04439.
XX
PR   11-FEB-2000; 2000US-0183495.
PR   28-JUN-2000; 2000US-0215735.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Carter D, Vedvick TS, Vallieve-Douglass J, Houghton RL, Dillon DC;
XX
DR   WPI; 2001-497069/54.
DR   N-PSDB; AAD13781.
XX
PT   Novel isolated complex two lipophilin-like polypeptides linked by at
PT   least one disulfide bond, used to treat or prevent breast, ovarian or
PT   prostate cancer -
X
I    Example 6; Page 87-88; 91pp; English.
X
CC   The invention relates to a complex comprising a lipophilin-like
CC   polypeptide linked by at least one disulphide bond to a second
CC   lipophilin-like polypeptide. Lipophilin-like protein are members of
CC   uteroglobin superfamily. Lipophilin-like proteins are useful in the
CC   preparation of vaccines. The complex containing lipophilin-like
CC   proteins are useful for treating or preventing breast, ovarian or
CC   prostate cancer. The complex is also used for determining the
CC   presence or absence of cancer in a patient, or monitor the progress
CC   of cancer in a patient. Lipophilin DNA is also useful in gene therapy.
CC   The present sequence is human mammaglobin variant which is obtained by
CC   replacing the 73rd amino acid Thr to Ser. Mammaglobin is a lipophilin-
CC   like protein.
XX
SQ   Sequence   93 AA;

  Query Match             99.2%;  Score 471;  DB 22;  Length 93;
  Best Local Similarity   98.9%;  Pred. No. 8.5e-47;
  Matches   92;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||:||||||||||||||||||||||
Db      61 ELKECFLNQTDESLSNVEVFMQLIYDSSLCDLF 93


RESULT 15
AAE07536
ID   AAE07536 standard; Protein; 93 AA.
XX
AC   AAE07536;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human mammaglobin variant #6.
XX
KW   Human; lipophilin B; cytostatic; vaccine; mammaglobin; variant; mutant;
KW   gene therapy; uteroglobin; cancer; breast; ovary; prostate; mutein.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 54
FT                   /note= "Wild type Ala substituted with Val"
XX
PN   WO200158947-A1.
XX
PD   16-AUG-2001.
XX
PF   08-FEB-2001; 2001WO-US04439.
XX
PR   11-FEB-2000; 2000US-0183495.
PR   28-JUN-2000; 2000US-0215735.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Carter D, Vedvick TS, Vallieve-Douglass J, Houghton RL, Dillon DC;
XX
DR   WPI; 2001-497069/54.
DR   N-PSDB; AAD13785.
XX
PT   Novel isolated complex two lipophilin-like polypeptides linked by at
PT   least one disulfide bond, used to treat or prevent breast, ovarian or
PT   prostate cancer -
XX
PS   Example 6; Page 88; 91pp; English.
XX
CC   The invention relates to a complex comprising a lipophilin-like
CC   polypeptide linked by at least one disulphide bond to a second
CC   lipophilin-like polypeptide. Lipophilin-like protein are members of
CC   uteroglobin superfamily. Lipophilin-like proteins are useful in the
CC   preparation of vaccines. The complex containing lipophilin-like
CC   proteins are useful for treating or preventing breast, ovarian or
CC   prostate cancer. The complex is also used for determining the
CC   presence or absence of cancer in a patient, or monitor the progress
CC   of cancer in a patient. Lipophilin DNA is also useful in gene therapy.
CC   The present sequence is human mammaglobin variant which is obtained by
CC   replacing the 54th amino acid Ala to Val. Mammaglobin is a lipophilin-
CC   like protein.
XX
SQ   Sequence   93 AA;

  Query Match             99.2%;  Score 471;  DB 22;  Length 93;
  Best Local Similarity   98.9%;  Pred. No. 8.5e-47;
  Matches   92;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
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Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNVTTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
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Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


Search completed: April 24, 2003, 16:18:57
Job time : 33.5082 secs
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GenCore version 5.1.4_p5_4578

OM protein - protein search, using sw model

Run on: April 24, 2003, 16:19:02 ; Search time 14.2623 Seconds
(without alignments)
505.647 Million cell updates/sec

Title: US-09-975-502A-6
Perfect score: 450
Sequence: 1 MKLSVCLLLVTLALCCYQAN.....LQKRSLIAEVLVKILKKCSV 90

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 301932 seqs, 80129803 residues

Total number of hits satisfying chosen parameters: 301932

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
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2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
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14: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	450	100.0	90	9	US-09-975-502A-6	Sequence 6, Appli
2	450	100.0	90	9	US-09-905-673-2	Sequence 2, Appli
3	450	100.0	90	9	US-09-905-673-35	Sequence 35, Appl
4	450	100.0	90	10	US-09-825-301-77	Sequence 77, Appl
5	450	100.0	90	10	US-09-110-716-29	Sequence 29, Appl
6	450	100.0	90	10	US-09-934-054-1	Sequence 1, Appli
7	450	100.0	90	10	US-09-985-911-4	Sequence 4, Appli
8	450	100.0	182	9	US-09-905-673-61	Sequence 61, Appl
9	447	99.3	90	9	US-09-905-673-36	Sequence 36, Appl
10	445	98.9	90	9	US-09-905-673-41	Sequence 41, Appl
11	445	98.9	182	9	US-09-905-673-60	Sequence 60, Appl
12	440	97.8	90	9	US-09-905-673-40	Sequence 40, Appl
13	436	96.9	90	9	US-09-905-673-37	Sequence 37, Appl
14	435	96.7	90	9	US-09-905-673-39	Sequence 39, Appl
15	433	96.2	90	9	US-09-905-673-42	Sequence 42, Appl
16	417	92.7	88	9	US-09-905-673-38	Sequence 38, Appl
17	342	76.0	69	10	US-09-110-716-37	Sequence 37, Appl
18	342	76.0	145	9	US-09-905-673-62	Sequence 62, Appl
19	342	76.0	145	9	US-09-905-673-63	Sequence 63, Appl
20	277	61.6	90	10	US-09-985-911-2	Sequence 2, Appli
21	268	59.6	90	10	US-09-110-716-27	Sequence 27, Appl
22	246	54.7	50	10	US-09-864-761-44240	Sequence 44240, A
23	238	52.9	83	9	US-09-992-598-260	Sequence 260, App
24	238	52.9	83	9	US-09-989-293A-260	Sequence 260, App
25	238	52.9	83	9	US-09-989-735-260	Sequence 260, App
26	238	52.9	83	9	US-09-990-444-260	Sequence 260, App
27	238	52.9	83	9	US-09-989-730-260	Sequence 260, App
28	238	52.9	83	9	US-09-990-436-260	Sequence 260, App
29	238	52.9	83	9	US-09-991-181-260	Sequence 260, App
30	238	52.9	83	9	US-09-993-687-260	Sequence 260, App
31	238	52.9	83	9	US-09-989-734-260	Sequence 260, App
32	238	52.9	83	9	US-10-028-072-440	Sequence 440, App
33	238	52.9	83	9	US-09-997-653-260	Sequence 260, App
34	238	52.9	83	9	US-09-993-667-260	Sequence 260, App
35	238	52.9	83	9	US-10-121-049-440	Sequence 440, App
36	238	52.9	83	9	US-10-123-904-440	Sequence 440, App
37	238	52.9	83	9	US-10-140-470-440	Sequence 440, App
38	238	52.9	83	9	US-09-990-438-260	Sequence 260, App
39	238	52.9	83	9	US-09-990-562-260	Sequence 260, App
40	238	52.9	83	9	US-09-997-428-260	Sequence 260, App
41	238	52.9	83	9	US-09-997-666-260	Sequence 260, App
42	238	52.9	83	9	US-10-175-746-440	Sequence 440, App
43	238	52.9	83	9	US-10-176-918-440	Sequence 440, App
44	238	52.9	83	9	US-10-176-921-440	Sequence 440, App
45	238	52.9	83	9	US-09-990-711-260	Sequence 260, App

ALIGNMENTS

RESULT 1
US-09-975-502A-6
; Sequence 6, Application US/09975502A
; Publication No. US20030044859A1
; GENERAL INFORMATION:
; APPLICANT: Abbott Laboratories
; APPLICANT: Henslee, Jerry G.
; APPLICANT: Friedman, Paula N.
; TITLE OF INVENTION: REAGENTS AND METHODS USEFUL FOR
; TITLE OF INVENTION: DETECTING DISEASES OF THE BREAST
; FILE REFERENCE: 5972.US.P7
; CURRENT APPLICATION NUMBER: US/09/975,502A
; CURRENT FILING DATE: 2002-06-10
; PRIOR APPLICATION NUMBER: US 09/467,602
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: US 09/215,818
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: US 08/912,276
; PRIOR FILING DATE: 1997-08-15
; PRIOR APPLICATION NUMBER: US 08/697,105
; PRIOR FILING DATE: 1996-08-19
; PRIOR APPLICATION NUMBER: US 08/912,149
; PRIOR FILING DATE: 1997-08-15
; PRIOR APPLICATION NUMBER: US 08/697,106
; PRIOR FILING DATE: 1996-08-19
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 90
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-975-502A-6

Query Match 100.0%; Score 450; DB 9; Length 90;
Best Local Similarity 100.0%; Pred. No. 2.2e-45;
Matches 90; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
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Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

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RESULT 2
US-09-905-673-2
; Sequence 2, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 2
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Homo sapien
US-09-905-673-2

  Query Match             100.0%;  Score 450;  DB 9;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 2.2e-45;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
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Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
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RESULT 3
US-09-905-673-35
; Sequence 35, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
;    ID NO 35
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-673-35

  Query Match             100.0%;  Score 450;  DB 9;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 2.2e-45;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
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Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
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RESULT 4
US-09-825-301-77
; Sequence 77, Application US/09825301
; Patent No. US20020009738A1
; GENERAL INFORMATION:
;  APPLICANT: Houghton, Raymond L.
;  APPLICANT:  Dillon, Davin C.
;  APPLICANT:  Molesh, David A.
;  APPLICANT:  Xu, Jiangchun
;  APPLICANT:  Zehentner, Barbara
;  APPLICANT:  Persing, David H.
;  TITLE OF INVENTION: METHODS, COMPOSITIONS AND KITS FOR THE DETECTION
;  TITLE OF INVENTION:  AND MONITORING OF BREAST CANCER
;  FILE REFERENCE: 210121.513
;  CURRENT APPLICATION NUMBER: US/09/825,301
;  CURRENT FILING DATE:  2001-04-02
;  NUMBER OF SEQ ID NOS: 77
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 77
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-825-301-77

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  Best Local Similarity   100.0%;  Pred. No. 2.2e-45;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
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Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
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RESULT 5
US-09-110-716-29
; Sequence 29, Application US/09110716A
; Patent No. US20020034739A1
; GENERAL INFORMATION:
;  APPLICANT: Lehrer, Robert I.
;  APPLICANT: Zhao, Chengquan
;  APPLICANT: Glasgow, Benjamin J.
;  TITLE OF INVENTION: PEPTIDES CHARACTERISTIC OF CERTAIN TUMORS
;  FILE REFERENCE: 22000-20596.00
;  CURRENT APPLICATION NUMBER: US/09/110,716A
;  CURRENT FILING DATE: 1998-07-07
;  NUMBER OF SEQ ID NOS: 41
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 29
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: lipophilin B
US-09-110-716-29

  Query Match             100.0%;  Score 450;  DB 10;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 2.2e-45;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
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Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
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RESULT 6
US-09-934-054-1
; Sequence 1, Application US/09934054
; Patent No. US20020107385A1
;   GENERAL INFORMATION:
;        APPLICANT: Akerblom, Ingrid E.
```

```
;                 Hillman, Jennifer L.
;                 Murry, Lynn E.
;                 Goli, Surya K.
;                 Hawkins, Phillip R.
;       TITLE OF INVENTION: BREAST TUMOR SPECIFIC PROTEINS
;       NUMBER OF SEQUENCES: 13
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Fish & Richardson P.C.
;            STREET: 2200 Sand Hill Road, Suite 100
;            CITY: Menlo Park
;            STATE: CA
;            COUNTRY: USA
;            ZIP: 94025-6936
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.25
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/934,054
;            FILING DATE: 21-Aug-2001
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US/08/747,547
;            FILING DATE: <Unknown>
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Billings, Lucy J.
;            REGISTRATION NUMBER: 36,749
;            REFERENCE/DOCKET NUMBER: PF-0077 US
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (650) 855-0555
;            TELEFAX: (650) 845-4166
;   INFORMATION FOR SEQ ID NO: 1:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 90 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: double
;            TOPOLOGY: linear
;       MOLECULE TYPE: <Unknown>
;       SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-934-054-1

  Query Match           100.0%;  Score 450;  DB 10;  Length 90;
  Best Local Similarity  100.0%;  Pred. No. 2.2e-45;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

 y       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           |||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 7
US-09-985-911-4
; Sequence 4, Application US/09985911
; Patent No. US20020151012A1
; GENERAL INFORMATION:
;  APPLICANT: NI ET AL.
;  TITLE OF INVENTION: HUMAN ENDOMETRIAL SPECIFIC STEROID-BINDING FACTOR I, II AND III
;  FILE REFERENCE: PF257D3
;  CURRENT APPLICATION NUMBER: US/09/985,911
;  CURRENT FILING DATE:  2001-11-06
;  PRIOR APPLICATION NUMBER: 09/583,169
;  PRIOR FILING DATE: 2000-05-30
;  PRIOR APPLICATION NUMBER: 09/263,810
;  PRIOR FILING DATE: 1999-03-08
;  PRIOR APPLICATION NUMBER: 08/821,451
;  PRIOR FILING DATE: 1997-03-21
;  PRIOR APPLICATION NUMBER: 60/014,724
;  PRIOR FILING DATE: 1996-03-21
;  NUMBER OF SEQ ID NOS: 27
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: human
US-09-985-911-4

  Query Match           100.0%;  Score 450;  DB 10;  Length 90;
  Best Local Similarity  100.0%;  Pred. No. 2.2e-45;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           |||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 8
US-09-905-673-61
; Sequence 61, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 61
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-673-61

  Query Match           100.0%;  Score 450;  DB 9;  Length 182;
  Best Local Similarity  100.0%;  Pred. No. 5e-45;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           |||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 9
US-09-905-673-36
; Sequence 36, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 36
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-673-36
```

```
  Query Match             99.3%;  Score 447;  DB 9;  Length 90;
  Best Local Similarity   98.9%;  Pred. No. 4.9e-45;
  Matches   89;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||:||||||||||||||||||||||||||||
Db      61 GVRRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 10
US-09-905-673-41
; Sequence 41, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
   FILE REFERENCE: 210121.498C1
   CURRENT APPLICATION NUMBER: US/09/905,673
   CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 41
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-673-41

  Query Match             98.9%;  Score 445;  DB 9;  Length 90;
  Best Local Similarity   98.9%;  Pred. No. 8.4e-45;
  Matches   89;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||:||||||||||||||||||||||||
Db      61 GVKRCTNQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 11
US-09-905-673-60
; Sequence 60, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
    PPLICANT: Dillon, Davin C.
   .PPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 60
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-673-60

  Query Match             98.9%;  Score 445;  DB 9;  Length 182;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-44;
  Matches   89;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2 KLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKLG 61
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      94 KLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKLG 153

Qy      62 VKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db     154 VKRCTDQMSLQKRSLIAEVLVKILKKCSV 182


RESULT 12
US-09-905-673-40
; Sequence 40, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 40
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-673-40

  Query Match             97.8%;  Score 440;  DB 9;  Length 90;
  Best Local Similarity   98.9%;  Pred. No. 3.2e-44;
  Matches   89;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPLEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 13
US-09-905-673-37
; Sequence 37, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 37
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-673-37

  Query Match             96.9%;  Score 436;  DB 9;  Length 90;
  Best Local Similarity   97.8%;  Pred. No. 9.4e-44;
  Matches   88;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           |||||||||||| ||||||||||||||||||||||||||||||||||||| |||||||
Db       1 MKLSVCLLLVTLVLCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPLEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 14
```

```
US-09-905-673-39
; Sequence 39, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 39
;   LENGTH: 90
;   TYPE: PRT
    ORGANISM: Homo sapiens
  -09-905-673-39

  Query Match             96.7%;  Score 435;  DB 9;  Length 90;
  Best Local Similarity   97.8%;  Pred. No. 1.2e-43;
  Matches   88;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           |||||||||||||||||||||||||||| |||||||||||||||||||||| |||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVPELLDFFFISEPLFKLSLAKFDAPLEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 15
US-09-905-673-42
; Sequence 42, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 42
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-673-42

  Query Match             96.2%;  Score 433;  DB 9;  Length 90;
  Best Local Similarity   97.8%;  Pred. No. 2.1e-43;
  Matches   88;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           |||||||||||||||||||||||||||||||||||||||||||||||||||| |||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPLEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||| ||||||||||||||||||||||||||
Db      61 GVKGCTDQMSLQKRSLIAEVLVKILKKCSV 90


Search completed: April 24, 2003, 16:21:58
Job time : 14.2623 secs
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GenCore version 5.1.4_p5_4578

OM protein - protein search, using sw model

Run on: April 24, 2003, 16:13:12 ; Search time 30.4918 Seconds
(without alignments)
393.304 Million cell updates/sec

Title: US-09-975-502A-6
Perfect score: 450
Sequence: 1 MKLSVCLLLVTLALCCYQAN.....LQKRSLIAEVLVKILKKCSV 90

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_101002:*
1: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
4: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
5: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1984.DAT:*
6: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:*
7: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:*
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9: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*
10: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
11: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
12: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
13: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1992.DAT:*
14: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1993.DAT:*
15: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1994.DAT:*
16: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1995.DAT:*
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21: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2000.DAT:*
22: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
23: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	450	100.0	90	18	AAW35803	Human endometrial
2	450	100.0	90	19	AAW59776	Amino acid sequenc
3	450	100.0	90	19	AAW54271	BU101 antigenic pe
4	450	100.0	90	20	AAW89613	Endometrial steroi
5	450	100.0	90	21	AAB13787	Human BU101. Homo
6	450	100.0	90	21	AAB07501	Amino acid sequenc
7	450	100.0	90	21	AAB03768	Human endometrial
8	450	100.0	90	21	AAY84875	A human endometria
9	450	100.0	90	22	AAG65989	Lipophilin B polyp
10	450	100.0	90	22	AAE07518	Human lipophilin B
11	450	100.0	90	22	AAB31681	An endometrial spe
12	450	100.0	90	23	ABB09634	Human endometrial
13	450	100.0	117	22	ABB11907	Human breast tumou
14	450	100.0	120	20	AAY48606	Human breast tumou
15	447	99.3	90	22	AAE07521	Human lipophilin B
16	445	98.9	90	22	AAE07525	Human lipophilin B
17	440	97.8	90	22	AAE07524	Human lipophilin B
18	436	96.9	90	22	AAE07522	Human lipophilin B
19	435	96.7	90	22	AAE07526	Human lipophilin B
20	434.5	96.6	89	23	AAO20554	Protein of human L
21	433	96.2	90	22	AAE07527	Human lipophilin B
22	417	92.7	88	22	AAE07523	Human lipophilin B
23	342	76.0	69	19	AAW54279	BU101 antigenic pe
24	342	76.0	69	21	AAB07509	Amino acid sequenc
25	277	61.6	90	18	AAW35802	Human endometrial
26	277	61.6	90	21	AAB03767	Human endometrial
27	277	61.6	90	22	AAB31680	An endometrial spe
28	277	61.6	90	23	ABB09633	Human endometrial
29	267	59.3	53	21	AAG00474	Human secreted pro
30	267	59.3	53	21	AAY64680	Human 5' EST relat
31	267	59.3	90	22	AAM23955	Human EST encoded
32	261	58.0	90	23	AAO20553	Protein of human L
33	254	56.4	102	22	AAB87666	Bovine mammary tis
34	246	54.7	50	22	ABB40007	Peptide #7513 enco
35	246	54.7	50	22	AAM60754	Human brain expres
36	246	54.7	50	22	AAM73426	Human bone marrow
37	246	54.7	50	22	AAM33628	Peptide #7665 enco
38	246	54.7	50	23	ABG43285	Human peptide enco
39	244	54.2	79	20	AAY59999	Human endometrium
40	242	53.8	92	22	ABG26041	Novel human diagno
41	238	52.9	83	21	AAB24417	Human PRO812 prote
42	238	52.9	83	21	AAY66704	Membrane-bound pro
43	238	52.9	83	22	AAU12391	Human PRO812 polyp
44	238	52.9	83	22	AAB65227	Human PRO812 (UNQ5
45	219	48.7	45	19	AAW54278	BU101 antigenic pe

ALIGNMENTS

RESULT 1
AAW35803
ID AAW35803 standard; Protein; 90 AA.
XX
AC AAW35803;
XX
DT 27-MAR-1998 (first entry)
XX
DE Human endometrial specific steroid-binding factor II.
XX
KW Endometrial specific steroid-binding factor II; ESF II; human;
KW Clara cell secretory protein; endometrium;
KW phospholipase A2 inhibitor; polychlorinated biphenyl; antiaggregant;
KW inflammation; asthma; rhinitis; cystic fibrosis; airway disease;
KW neoplasia; atopy; therapy; diagnosis.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..21
FT /label= Sig_peptide
FT Protein 22..90
FT /label= Mat_protein
XX
PN WO9734997-A1.
XX
PD 25-SEP-1997.
XX
PF 21-MAR-1996; 96WO-US03857.
XX
PR 21-MAR-1996; 96WO-US03857.
XX
PA (HUMA-) HUMAN GENOME SCI INC.

XX
PI Gentz RL, Ni J, Yu G;
XX
DR WPI; 1997-480206/44.
DR N-PSDB; AAT94831.
XX
PT Human endometrial specific steroid-binding factor I, II and III -
PT used to treat inflammation, asthma, rhinitis, cystic fibrosis,
PT airway disease, neoplasia, atopy etc.
XX
PS Claim 18; Page 63-64; 92pp; English.
XX
CC This sequence comprises human endometrial specific steroid binding
CC factor II (ESF II), a protein that inhibits phospholipase A2
CC activity, binds to polychlorinated biphenyl compounds, reduces
CC foreign protein antigenicity, inhibits monocyte and neutrophil
CC chemotaxis and phagocytosis, inhibits platelet aggregation,
CC regulates eicosanoid levels in the human uterus and controls the
CC growth of endometrial cells. The amino acid sequence was deduced
CC from a cDNA clone (see AAT94831) derived from cycloheximide-treated
CC CEM cells. ESF I (see AAW35802) and ESF III (see AAW35804) are also
CC claimed. Human ESF II has about 49% identity with rat prostatic
CC steroid-binding protein. Recombinant ESF I, II and III can be
CC expressed in host cells for use in claimed methods (a) for treating
CC a patient in need of ESF I, II or III (including expression of the
CC polypeptide in vivo) and (b) for identifying compounds which bind
CC to and inhibit activation of the ESF polypeptide. hESF I, II and
CC III may be used to treat inflammation, asthma, rhinitis, cystic
CC fibrosis, airway disease, neoplasia and atopy.
XX
SQ Sequence 90 AA;

Query Match 100.0%; Score 450; DB 18; Length 90;
Best Local Similarity 100.0%; Pred. No. 9.2e-51;
Matches 90; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
||||||||||||||||||||||||||||||
Db 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90

RESULT 2
AAW59776
ID AAW59776 standard; Protein; 90 AA.
XX
AC AAW59776;
XX
DT 12-OCT-1998 (first entry)
XX
DE Amino acid sequence of the human steroid binding protein C1.
XX
KW Human steroid-binding protein C1; hSBP1; hSBP2; breast cancer; probe;
KW gene therapy vector; ribozyme; probe; hybridisation; amplification;
KW antibody; immunoassay.
XX
OS Homo sapiens.
XX
PN WO9821331-A1.
XX
PD 22-MAY-1998.
XX
PF 07-NOV-1997; 97WO-US20674.
XX
PR 12-NOV-1996; 96US-0747547.
XX
PA (INCY-) INCYTE PHARM INC.
XX
PI Akerblom IE, Goli SK, Hawkins PR, Hillman JL, Murry LE;
XX
DR WPI; 1998-297935/26.
DR N-PSDB; AAV41579.
XX
PT New human steroid binding proteins C1 and C2 - useful for, e.g.
PT diagnosis, monitoring and treating breast cancer, and for drug
PT screening
XX
PS Claim 1; Fig 1; 70pp; English.
XX
CC This is the amino acid sequence of the human steroid-binding protein
CC C1 (hSBP1) used in the method of the invention for the diagnosis,
CC monitoring and treatment of breast cancer. HSBP1 and hSBP2 are useful
CC as markers for breast cancer, i.e. measuring levels of hSBP1 and hSBP2
CC used for diagnosis or monitoring the disease, to identify subjects
CC at risk and to discriminate between different forms of cancer for
CC selection of appropriate therapies. They may also be used for drug
CC screening. Nucleic acids encoding hSBP1 and hSBP2 can be used in gene
CC therapy vectors to overexpress the steroid-binding proteins, preventing
CC binding of steroids, or antisense sequences, ribozymes. Their nucleic
CC acids can also be used for the diagnosis and monitoring (by quantifying
CC expression of hSBP), as source of probes for hybridisation and
CC amplification of genomic or related sequences for studying regulation of
CC gene function and for mapping the genomic sequence. Antibodies are used
CC as diagnostic reagents in standard immunoassays for hSBP.
XX
SQ Sequence 90 AA;

Query Match 100.0%; Score 450; DB 19; Length 90;
Best Local Similarity 100.0%; Pred. No. 9.2e-51;
Matches 90; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
||||||||||||||||||||||||||||||
Db 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90

RESULT 3
AAW54271
ID AAW54271 standard; Protein; 90 AA.
XX
AC AAW54271;
XX
DT 29-JUL-1998 (first entry)
XX
DE BU101 antigenic peptide epitope 1.
XX
KW BU101; breast cancer; diagnosis; prevention; treatment; gene therapy;
KW immunisation; drug screening; epitope.
XX
OS Homo sapiens.
XX
PN WO9807857-A1.
XX
PD 26-FEB-1998.
XX
PF 19-AUG-1997; 97WO-US14665.
XX
PR 15-AUG-1997; 97US-0912276.
PR 19-AUG-1996; 96US-0697105.
XX
PA (ABBO) ABBOTT LAB.
XX
PI Billing-medel PA, Cohen M, Colpitts TL, Friedman PN;
PI Gordon J, Granadosen, Hodges SC, Klass MR, Kralochvil JD;
PI Roberts-rapp L, Russell JC, Stroupe SD;
XX
DR WPI; 1998-169161/15.
DR N-PSDB; AAV26461.
XX

PT New BU101 protein over-expressed in breast cancer - useful for, e.g.
PT diagnosis, treatment and prevention of breast cancer
XX
PS Claim 17; Page 90; 105pp; English.
XX
CC This represents a BU101 polypeptide sequence. BU101 is a member of the
CC uteroglobin family of proteins and is over-expressed in breast cancer.
CC Cells transformed with a recombinant expression system comprising a
CC sequence derived from the BU101 open reading frame and with at least 50
CC percent identity to the sequences shown in AAV26458 to AAV26461 are used
CC to produce BU101 polypeptides containing at least 1 epitope. These are
CC used to detect BU101-specific antibodies which are used correspondingly
CC to detect BU101 antigens. The BU101 polynucleotide sequences can be used
CC in a method for detecting the presence of a target BU101 polynucleotide.
CC The various assays are used for diagnosis, prognosis, staging,
CC monitoring, treating and preventing diseases of the breast (especially
cancer and its metastases), and also for determining susceptibility. The
BU101 polypeptides are also useful in drug screening, e.g. to identify
CC antagonists of BU101, potentially useful therapeutically and as targets
CC for therapy. The antibodies are also useful for targeted drug delivery
CC and therapeutically to neutralise BU101 polypeptides. Fragments of the
CC BU101 nucleic acid are useful as probes and primers, e.g. for detection
CC of altered gene expression or in fluorescent in situ hybridisation, also
CC in gene therapy to generate antisense or ribozyme molecules or for
CC genetic immunisation.
XX
SQ Sequence 90 AA;

Query Match 100.0%; Score 450; DB 19; Length 90;
Best Local Similarity 100.0%; Pred. No. 9.2e-51;
Matches 90; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
||||||||||||||||||||||||||||||
Db 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90

RESULT 4
AAW89613
ID AAW89613 standard; Protein; 90 AA.
XX
AAW89613;
XX
DT 25-MAR-1999 (first entry)
XX
DE Endometrial steroid binding protein II.
XX
KW Endometrial steroid binding protein II; ESBPII; cancer; detection;
KW endometriosis; endometrial fibroid; mammary cancer.
XX
OS Homo sapiens.
XX
PN WO9856248-A1.
XX
PD 17-DEC-1998.
XX
PF 09-JUN-1998; 98WO-US12053.
XX
PR 09-JUN-1997; 97US-0049015.
XX
PA (SMIK) SMITHKLINE BEECHAM CORP.
XX
PI Schmidt CJ, Wang X;
XX
DR WPI; 1999-080843/07.
DR N-PSDB; AAX00069.
XX
PT Treatment of endometrial cancer, mammary cancer, endometriosis or
PT endometrial fibroids - comprises administering endometrial steroid
PT binding protein II antagonist
XX
PS Disclosure; Page 13; 19pp; English.
XX
CC A method has been developed for the treatment of endometrial cancer,
CC mammary cancer, endometriosis or endometrial fibroids. The method
CC comprises administering endometrial steroid binding protein II (ESBPII)
CC antagonist. Also described in the present invention are: (1) a method
CC for diagnosing the above mentioned diseases comprising analysing the
CC abnormally high level of ESBPII polypeptide in cells, tissues and bodily
CC fluids; and (2) a diagnostic method for the diseases described above
CC comprising analysing the abnormally high or low transcription level of
CC ESBPII in cells, tissues and bodily fluids. The methods can be used to
CC diagnose, treat, and monitor the progression, remission or recurrence of
CC abnormal cell growth, such as cancers, especially endometrial and
CC mammary cancer, and endometriosis and endometrial fibroids. The present
CC sequence represents ESBPII, from the present invention.
XX
SQ Sequence 90 AA;

Query Match 100.0%; Score 450; DB 20; Length 90;
Best Local Similarity 100.0%; Pred. No. 9.2e-51;
Matches 90; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
||||||||||||||||||||||||||||||
Db 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90

RESULT 5
AAB13787
ID AAB13787 standard; Protein; 90 AA.
XX
AC AAB13787;
XX
DT 20-JUN-2001 (first entry)
XX
DE Human BU101.
XX
KW Human; breast cancer; breast disease detection; mammaglobin;
KW uteroglobin; BU101; endometrial; cytostatic.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 53
FT /label= Leu
FT /note= "Encoded by CTG in polymorphic variant"
XX
PN WO200035950-A2.
XX
PD 22-JUN-2000.
XX
PF 20-DEC-1999; 99WO-US30489.
XX
PR 18-DEC-1998; 98US-0215818.
XX
PA (ABBO) ABBOTT LAB.
XX
PI Colpitts TL, Russell JE;
XX
DR WPI; 2000-442366/38.
DR N-PSDB; AAA64846.
XX
PT Multimeric polypeptide antigen and antibody specific to the antigen are
PT useful for diagnosing, detecting and treating breast cancer -
XX
PS Claim 1; Page 124; 124pp; English.
XX

```
CC   BU101 is a member of the uteroglobin protein family. The present
CC   sequence is the protein sequence for human BU101. The present
CC   invention relates to a multimeric polypeptide antigen, which comprises
CC   of the present sequence and mammaglobin polypeptide (AAB13786).
CC   Mammaglobin is another uteroglobin protein. The presence of multimeric
CC   polypeptide antigen in a test sample can be used as the basis for a test
CC   to diagnose breast disease e.g. breast cancer, in a patient. The
CC   detection can be carried out using antibodies specific for the multimeric
CC   polypeptide antigen. The present sequence can either have a Pro or Leu
CC   residue at  position 53, since the coding sequence has a single
CC   nucleotide  T/C polymorphism at nucleotide position 254.
XX
SQ   Sequence   90 AA;

  Query Match             100.0%;  Score 450;  DB 21;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-51;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 6
AAB07501
ID   AAB07501 standard; Protein; 90 AA.
XX
AC   AAB07501;
XX
DT   20-OCT-2000  (first entry)
XX
DE   Amino acid sequence of a human BU101 polypeptide.
XX
KW   Human; BU101; breast disease.
XX
OS   Homo sapiens.
XX
PN   WO200041516-A2.
XX
PD   20-JUL-2000.
XX
PF   19-JAN-2000; 2000WO-US01309.
XX
PR   19-JAN-1999;   99US-0233693.
XX
PA   (ABBO ) ABBOTT LAB.
XX
P    Billing-medel PA,  Cohen M,  Colpitts TL,  Friedman PN,  Gordon J;
P.   Granados EN,  Hodges SC,  Klass MR,  Kratochvil JD,  Roberts-rapp L;
PI   Russell JC,  Scheffel CP,  Stroupe SD;
XX
DR   WPI; 2000-475906/41.
DR   N-PSDB; AAA58880.
XX
PT   Detecting presence of target BU101 polynucleotide in sample useful for
PT   detection of breast cancer, comprises contacting sample with
PT   BU101-specific polynucleotide and determining binding -
XX
PS   Claim 23; Page 125; 127pp; English.
XX
CC   The present sequence represents a BU101 polypeptide. The BU101 gene is
CC   transcribed from breast tissue. The specification describes a method for
CC   detecting the presence of a target BU101 polynucleotide in a test
CC   sample. The method comprises contacting the sample with at least one
CC   BU101-specific polynucleotide (AAA58875-80), and detecting bound
CC   polynucleotides. The method and BU1010 polynucleotides are useful for
CC   detecting the presence of BU101 polynucleotides. The methods may be
CC   used for the diagnosis of breast disease, indicated by the formation
CC   of complexes.
XX
SQ   Sequence   90 AA;

  Query Match             100.0%;  Score 450;  DB 21;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-51;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 7
AAB03768
ID   AAB03768 standard; Protein; 90 AA.
XX
AC   AAB03768;
XX
DT   06-OCT-2000  (first entry)
XX
DE   Human endometrial specific steroid-binding factor II protein sequence.
XX
KW   Endometrial specific steroid-binding factor; human; hESF; inflammation;
KW   asthma; rhinitis; cystic fibrosis; air way disease; neoplasia; atopy;
KW   eicosanoid level regulator; chemotaxis inhibitor; endometrial cancer; ss.
XX
OS   Homo sapiens.
XX
PN   US6066724-A.
XX
PD   23-MAY-2000.
XX
PF   21-MAR-1997;   97US-0821451.
XX
PR   21-MAR-1996;   96US-0014724.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Yu G,  Gentz R,  Ni J;
XX
DR   WPI; 2000-375600/32.
DR   N-PSDB; AAA59729.
XX
PT   Novel gene encoding human endometrial specific steroid-binding factor
PT   I, II and III which is useful for treating asthma, rhinitis, cystic
PT   fibrosis, airway disease and neoplasia -
XX
PS   Claim 1; Fig 2; 36pp; English.
XX
CC   This invention relates to nucleic acid molecules encoding portions of the
CC   human endometrial specific steroid-binding factors I, II, and III. Also
CC   included in the invention are hESF I, II, and III polypeptide sequences.
CC   The nucleotide sequence exhibit antiasthmatic, antiinflammatory,
CC   antiallergic, and cytostatic properties. The polynucleotides are used in
CC   gene therapy to express hESF I, II and III polypeptides in vivo to treat
CC   and/or prevent inflammation, asthma, rhinitis, cystic fibrosis, air way
CC   disease, neoplasia and atopy. The polynucleotides are also used to
CC   inhibit phospholipase A2 activity, bind polychlorinated biphenyls, reduce
CC   foreign protein antigenicity, inhibit monocyte and neutrophil chemotaxis
CC   and phagocytosis, inhibit platelet aggregation, regulate eicosanoid
CC   levels in the human uterus and control the growth of endometrial cells.
CC   The polynucleotides are also useful for detecting complementary
CC   polynucleotides as a diagnostic reagent. The hESF I, II and III
CC   polynucleotides are used to detect complementary polynucleotides such as
CC   a diagnostic reagent. Detection of a mutated form of hESF I, II and III
CC   associated with a dysfunction will provide a diagnostic tool that can
CC   define diagnosis of a disease or susceptibility to a disease which
CC   results from under-expression, over-expression or altered expression of
CC   hESF I, II and III e.g. a susceptibility to inherited asthma and
```

```
CC   endometrial cancer. They are also useful for chromosome identification.
CC   The present sequence represents a hESF II protein sequence identified in
CC   the invention.
XX
SQ   Sequence   90 AA;

  Query Match             100.0%;  Score 450;  DB 21;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-51;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 8
AAY84875
ID   AAY84875 standard; Protein; 90 AA.
XX
AC   AAY84875;
XX
DT   08-AUG-2000  (first entry)
XX
DE   A human endometrial specific steroid-binding protein II.
XX
KW   Human; endometrial specific steroid-binding protein II; ESBPII;
KW   breast tumour; prostate cancer; gynaecological cancer; cancer;
KW   endometrial cancer; ovarian cancer; uterine cancer.
XX
OS   Homo sapiens.
XX
PN   WO200020043-A1.
XX
PD   13-APR-2000.
XX
PF   05-OCT-1999;   99WO-US23252.
XX
PR   05-OCT-1998;   98US-0103093.
XX
PA   (DIAD-) DIADEXUS LLC.
XX
     Macina RA;
XX
DR   WPI; 2000-303648/26.
DR   N-PSDB; AAA14953.
XX
PT   Diagnosing, staging, monitoring, imaging and treating prostate and
PT   gynaecological cancers by measuring levels of endometrial specific
PT   steroid-binding protein (ESBP)II expression
XX
PS   Claim 6; Page 31-32; 35pp; English.
XX
CC   The present sequence represents a human endometrial specific steroid-
CC   binding protein (ESBP) II. The ESBPII protein is overexpressed in
CC   breast tumours. The specification describes a method for diagnosing
CC   prostate or a gynaecological cancer. The method comprises measuring
CC   levels of ESBPII in cells, tissues or body fluids of a patient, and
CC   comparing this to levels from a normal control, where a variance in
CC   levels indicates cancer. The method is used to diagnose, stage, monitor,
CC   image or treat prostate or gynaecological cancer. The gynaecological
CC   cancers include breast, endometrial, ovarian and uterine cancer.
XX
SQ   Sequence   90 AA;

  Query Match             100.0%;  Score 450;  DB 21;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-51;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 9
AAG65989
ID   AAG65989 standard; Protein; 90 AA.
XX
AC   AAG65989;
XX
DT   11-FEB-2002  (first entry)
XX
DE   Lipophilin B polypeptide.
XX
KW   Genetic subtraction; DNA microarray analysis; polymerase chain reaction;
KW   cancer; B726P; Lipophilin B; mammaglobin.
XX
OS   Homo sapiens.
XX
PN   WO200175171-A2.
XX
PD   11-OCT-2001.
XX
PF   02-APR-2001; 2001WO-US10631.
XX
PR   03-APR-2000; 2000US-194241P.
PR   20-JUL-2000; 2000US-219862P.
PR   27-JUL-2000; 2000US-221300P.
PR   18-DEC-2000; 2000US-256592P.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Houghton RL,  Dillon DC,  Molesh DA,  Xu J,  Zehentner B,  Persing DH;
XX
DR   WPI; 2001-626449/72.
DR   N-PSDB; AA167269.
XX
PT   Identifying tissue (tumour)-specific polynucleotides overexpressed in
PT   tissue of interest as compared to control tissue, for detecting cancer
PT   cells in patient, comprises DNA microarray analysis or quantitative
PT   polymerase chain reaction -
XX
PS   Examples; Page 127; 127pp; English.
XX
CC   The invention relates to identifying tissue-specific polynucleotides (P)
CC   that involves performing a genetic subtraction to identify pool of (P)
CC   from tissue of interest (T1), performing DNA microarray analysis to
CC   identify first subset of polynucleotides (SP1) at least 2-fold over
CC   expressed in T1, and performing quantitative polymerase chain reaction
CC   (PCR) analysis on SP1 to identify second subset of (P). The method is
CC   useful for determining the presence or absence of a cancer cell in a
CC   patient, monitoring the progression of cancer in a patient using a
CC   biological sample such as blood, serum, lymph nodes, bone marrow, sputum,
CC   urine or a tumour biopsy sample. The methods are useful for determining
CC   the presence or absence of or monitoring progression of prostate, breast,
CC   colon, ovarian, lung, head and neck, lymphoma, leukemia, melanoma, liver,
CC   gastric, kidney, bladder, pancreatic or endometrial cancer. The present
CC   sequence represents the lipophilin B polypeptide.
XX
SQ   Sequence   90 AA;

  Query Match             100.0%;  Score 450;  DB 22;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-51;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
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```
Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 10
AAE07518
ID   AAE07518 standard; Protein; 90 AA.
XX
AC   AAE07518;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human lipophilin B protein.
XX
KW   Human; lipophilin B; cytostatic; vaccine; gene therapy; uteroglobin;
KW   cancer; breast; ovary; prostate.
XX
OS   Homo sapiens.
XX
PN   WO200158947-A1.
XX
     16-AUG-2001.

     08-FEB-2001; 2001WO-US04439.
XX
PR   11-FEB-2000; 2000US-0183495.
PR   28-JUN-2000; 2000US-0215735.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Carter D,  Vedvick TS,  Vallieve-Douglass J,  Houghton RL,  Dillon DC;
XX
DR   WPI; 2001-497069/54.
DR   N-PSDB; AAD13756.
XX
PT   Novel isolated complex two lipophilin-like polypeptides linked by at
PT   least one disulfide bond, used to treat or prevent breast, ovarian or
PT   prostate cancer -
XX
PS   Example 5; Page 72; 91pp; English.
XX
CC   The invention relates to a complex comprising a lipophilin-like
CC   polypeptide linked by at least one disulphide bond to a second
CC   lipophilin-like polypeptide. Lipophilin-like protein are members of
CC   uteroglobin superfamily. Lipophilin-like proteins are useful in the
CC   preparation of vaccines. The complex containing lipophilin-like
CC   proteins are useful for treating or preventing breast, ovarian or
CC   prostate cancer. The complex is also used for determining the
CC   presence or absence of cancer in a patient, or monitor the progress
CC   of cancer in a patient. Lipophilin DNA is also useful in gene therapy.
C    The present sequence is human lipophilin B protein.
X.
SQ   Sequence   90 AA;

  Query Match             100.0%;  Score 450;  DB 22;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-51;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 11
AAB31681
ID   AAB31681 standard; Protein; 90 AA.
XX
AC   AAB31681;
XX
DT   30-APR-2001  (first entry)
XX
DE   An endometrial specific steroid binding factor II.
XX
KW   Human; endometrial specific steroid binding factor; hESF; hESFI; hESFII;
KW   hESFIII; inflammation; asthma; rhinitis; cystic fibrosis; airway disease;
KW   neoplasia; atopy; phospholipase A2; polychlorinated biphenyl; chemotaxis;
KW   phagocytosis; platelet aggregation; eicosanoid; endometrial cell.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..21
FT                   /note= "signal peptide"
XX
PN   US6174992-B1.
XX
PD   16-JAN-2001.
XX
PF   08-MAR-1999;   99US-0263810.
XX
PR   21-MAR-1996;   96US-0014724.
PR   21-MAR-1997;   97US-0821451.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ni J,  Yu G,  Gentz R;
XX
DR   WPI; 2001-158477/16.
DR   N-PSDB; AAF25213.
XX
PT   New human endometrial specific steroid binding factors, useful for
PT   treating and preventing inflammation, asthma, rhinitis, cystic
PT   fibrosis, airway disease, neoplasia and atopy -
XX
PS   Claim 1; Fig 2; 36pp; English.
XX
CC   The present sequence represents a human endometrial specific steroid
CC   binding factor (hESF). The specification describes hESFI, hESFII, and
CC   hESFIII. hESFI, II and III polypeptides, and polynucleotides encoding
CC   them are useful for treating and preventing inflammation, asthma,
CC   rhinitis, cystic fibrosis, airway disease, neoplasia and atopy,
CC   inhibiting phospholipase A2 activity, binding polychlorinated
CC   biphenyls, reducing foreign protein antigenicity, inhibiting monocyte
CC   and neutrophil chemotaxis and phagocytosis, inhibiting platelet
CC   aggregation, regulating eicosanoid levels in the human uterus, and for
CC   controlling the growth of endometrial cells. hESF polypeptides and
CC   nucleotides are also useful for research, biological, clinical or
CC   therapeutic purposes.
XX
SQ   Sequence   90 AA;

  Query Match             100.0%;  Score 450;  DB 22;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-51;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
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Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90


RESULT 12
ABB09634
ID   ABB09634 standard; Protein; 90 AA.
XX
AC   ABB09634;
XX
DT   29-MAY-2002  (first entry)
```

XX
DE Human endometrial specific steroid-binding factor (hESF) II.
XX
KW Human; endometrial specific steroid-binding factor; ESF;
KW prostatic steroid-binding protein; hESF I; hESF II; hESF III; asthma.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..21
FT /note= "signal peptide"
FT Protein 22..90
FT /note= "mature protein"
XX
PN US6338948-B1.
XX
15-JAN-2002.
30-MAY-2000; 2000US-0583169.
XX
PR 21-MAR-1996; 96US-014724P.
PR 21-MAR-1997; 97US-0821451.
PR 08-MAR-1999; 99US-0263810.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Ni J, Yu G, Gentz R;
XX
DR WPI; 2002-215019/27.
DR N-PSDB; ABL41782.
XX
PT New antibody specific for human endometrial specific steroid-binding
PT factor (hESF) III, useful for detecting hESF III protein in biological
PT sample and to isolate or identify clones expressing the protein -
XX
PS Disclosure; Fig 1; 36pp; English.
XX
CC The present sequence represents a endometrial specific steroid-binding
CC factor (hESF) II. The full length protein has a molecular weight of
CC 9.9 kDa. The protein has homology to rat prostatic steroid-binding
CC protein C2. Antibodies which bind hESF proteins, such as hESF I, hESF II,
CC and hESF III are useful for isolating or to identify clones expressing
CC the polypeptides or to purify the polypeptides by affinity
CC chromatography. Agonists and antagonists of hESF proteins are useful
CC for treating and/or preventing susceptibility to asthma.

Sequence 90 AA;

Query Match 100.0%; Score 450; DB 23; Length 90;
Best Local Similarity 100.0%; Pred. No. 9.2e-51;
Matches 90; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           |||||||||||||||||||||||||||||
Db      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
```

RESULT 13
ABB11907
ID ABB11907 standard; peptide; 117 AA.
XX
AC ABB11907;
XX
DT 11-JAN-2002 (first entry)
XX
DE Human breast tumour-associated protein homologue, SEQ ID NO:2277.
XX
KW Human; cytokine; cell proliferation; cell differentiation; growth factor;
KW haematopoiesis regulation; tissue growth; immunomodulator; activin;
KW inhibin; chemotaxis; chemokinesis; thrombolysis; oncogenesis;
KW proliferation; metastasis; cancer; tumour; haematopoietic disorder;
KW myeloid cell disorder; lymphoid cell disorder; asthma; arthritis;
KW chronic inflammatory condition; proliferative retinopathy;
KW atherosclerosis; coronary heart disease; arterial ischaemia;
KW bone disorder; osteoporosis; vascular growth disorder;
KW tissue regeneration; wound healing; infection; immune disorder;
KW cell culture; drug screening; gene therapy; antiinflammatory;
KW antiasthmatic; antiarthritic; haemostatic; antiarteriosclerotic;
KW cytostatic; osteopathic; vasotropic; cardiant; virucide; antibacterial;
KW antifungal; vulnerary; antiulcer.
XX
OS Homo sapiens.
XX
PN WO200157188-A2.
XX
PD 09-AUG-2001.
XX
PF 05-FEB-2001; 2001WO-US03800.
XX
PR 03-FEB-2000; 2000US-0496914.
PR 27-APR-2000; 2000US-0560875.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Drmanac RT;
XX
DR WPI; 2001-457740/49.
DR N-PSDB; ABA09151.
XX
PT Human proteins and DNA encoding sequences useful for preventing,
PT treating or ameliorating a medical condition in a mammalian subject
PT e.g. arthritis and cancer -
XX
PS Claim 20; Page 275; 1963pp; English.
XX
CC Sequences ABB10981-ABB12330 represent 1350 novel human polypeptides, and
CC sequences ABA08225-ABA09574 represent nucleic acids encoding them. The
CC invention also relates to vectors and recombinant host cells comprising a
CC nucleotide of the invention, methods of producing the novel polypeptides,
CC antibodies against the polypeptides, methods of detecting the nucleotides
CC or polypeptides in a sample, and methods of identifying compounds which
CC bind to polypeptides of the invention. Although novel, many of the
CC polypeptides of the invention have homology to known proteins, thereby
CC giving an insight into their probable biological activities, and hence
CC potential therapeutic applications. The polypeptides of the invention may
CC have various activities, including cytokine, cell proliferation or cell
CC differentiation activities; stem cell growth factor activity;
CC haematopoiesis regulatory activity; tissue growth activity;
CC immunomodulatory activity; activin- or inhibin-related activities;
CC chemotactic or chemokinetic activities; haemostatic, thrombotic or
CC thrombolytic activities; receptor or ligand activities; or may be
CC involved in oncogenesis, cancer cell proliferation or metastasis.
CC Depending on their biological activities, polypeptides and nucleotides of
CC the invention are useful for preventing, treating or ameliorating medical
CC conditions, e.g., by protein or gene therapy. Such conditions include
CC cancers, haematopoietic disorders (e.g.,myeloid or lymphoid cell
CC disorders), chronic inflammatory conditions (e.g., asthma or arthritis),
CC proliferative retinopathy, atherosclerosis, coronary heart disease,
CC arterial ischaemia, bone disorders (e.g., osteoporosis), and abnormal
CC vascular growth. Polypeptides involved with tissue regeneration and
CC repair (or nucleic acids encoding them) may be used to promote wound
CC healing (e.g., of burns, incisions and ulcers), while those with
CC immunomodulatory activities may be used in the treatment of viral,
CC bacterial and fungal infections in addition to immune disorders.
CC Polypeptides with growth factor activity may be used in cell cultures to
CC promote cell growth. For example, such polypeptides may be used to
CC manipulate stem cells in culture to give rise to neuroepithelial cells
CC that can be used to augment or replace cells damaged by illness,
CC autoimmune disease or accidental damage. The polypeptides and nucleotides
CC may also be used in the diagnosis of the above conditions, and in drug
CC screening techniques. The present sequence represents a novel human
CC polypeptide of the invention.

```
XX
SQ   Sequence   117 AA;

  Query Match           100.0%;  Score 450;  DB 22;  Length 117;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-50;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      28 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 87

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           |||||||||||||||||||||||||||||.
Db      88 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 117


RESULT 14
AAY48606
ID   AAY48606 standard; Protein; 120 AA.
XX
AC   AAY48606;
XX
DT   08-DEC-1999  (first entry)

DE   Human breast tumour-associated protein 67.
XX
KW   Expressed sequence tag; EST; human; breast; cancer; gene therapy;
KW   treatment; tumour; cytostatic; medicament.
XX
OS   Homo sapiens.
XX
PN   DE19813839-A1.
XX
PD   23-SEP-1999.
XX
PF   20-MAR-1998;   98DE-1013839.
XX
PR   20-MAR-1998;   98DE-1013839.
XX
PA   (META-) METAGEN GES GENOMFORSCHUNG MBH.
XX
PI   Specht T,  Hinzmann B,  Schmitt A,  Pilarsky C,  Dahl E,  Rosentahl A;
XX
DR   WPI; 1999-528981/45.
DR   N-PSDB; AAZ33666.
XX
PT   Human nucleic acid sequences and protein products from tumor breast
PT   tissue, useful for breast cancer therapy -
XX
PS   Claim 22; 172; 188pp; German.
XX
CC   This invention decribes novel human nucleic acid sequences from tumor
CC   breast tissue which have cytostatic activity. The nucleic acid sequences
CC   can be used to produce and isolate full-length gene sequences. They can
CC   be used to express proteins, which can be used as tools to find an
CC   activity against breast cancer. The sequences can be used in sense or
CC   antisense form. They are especially useful for medicaments for gene
CC   therapy to treat breast cancer. AAY48540-Y48617 represent protein
CC   fragments encoded by the expressed sequence tags described in the method
CC   of the invention.
XX
SQ   Sequence   120 AA;

  Query Match           100.0%;  Score 450;  DB 20;  Length 120;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-50;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      31 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 90

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
           ||||||||||||||||||||||||||||||
Db      91 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 120


RESULT 15
AAE07521
ID   AAE07521 standard; Protein; 90 AA.
XX
AC   AAE07521;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human lipophilin B S11 3 3 protein.
XX
KW   Human; lipophilin B S11 3 3; cytostatic; vaccine; gene therapy;
KW   uteroglobin; cancer; breast; ovary; prostate.
XX
OS   Homo sapiens.
XX
PN   WO200158947-A1.
XX
PD   16-AUG-2001.
XX
PF   08-FEB-2001; 2001WO-US04439.
XX
PR   11-FEB-2000; 2000US-0183495.
PR   28-JUN-2000; 2000US-0215735.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Carter D,  Vedvick TS,  Vallieve-Douglass J,  Houghton RL,  Dillon DC;
XX
DR   WPI; 2001-497069/54.
DR   N-PSDB; AAD13761.
XX
PT   Novel isolated complex two lipophilin-like polypeptides linked by at
PT   least one disulfide bond, used to treat or prevent breast, ovarian or
PT   prostate cancer -
XX
PS   Example 5; Page 82; 91pp; English.
XX
CC   The invention relates to a complex comprising a lipophilin-like
CC   polypeptide linked by at least one disulphide bond to a second
CC   lipophilin-like polypeptide. Lipophilin-like protein are members of
CC   uteroglobin superfamily. Lipophilin-like proteins are useful in the
CC   preparation of vaccines. The complex containing lipophilin-like
CC   proteins are useful for treating or preventing breast, ovarian or
CC   prostate cancer. The complex is also used for determining the
CC   presence or absence of cancer in a patient, or monitor the progress
CC   of cancer in a patient. Lipophilin DNA is also useful in gene therapy.
CC   The present sequence is human lipophilin B S11 3 3 protein.
XX
SQ   Sequence   90 AA;

  Query Match           99.3%;  Score 447;  DB 22;  Length 90;
  Best Local Similarity  98.9%;  Pred. No. 2.3e-50;
  Matches   89;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy      61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
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Db      61 GVRRCTDQMSLQKRSLIAEVLVKILKKCSV 90


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Job time : 31.4918 secs
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GenCore version 5.1.4_p5_4578

OM protein - protein search, using sw model

Run on: April 24, 2003, 16:19:02 ; Search time 14.7377 Seconds
(without alignments)
505.647 Million cell updates/sec

Title: US-09-975-502A-5
Perfect score: 475
Sequence: 1 MKLLMVLMLAALSQHCYAGS.....LSNVEVFMQLIYDSSLCDLF 93

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 301932 seqs, 80129803 residues

Total number of hits satisfying chosen parameters: 301932

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
1: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	475	100.0	93	9	US-10-076-622-503	Sequence 503, App
2	475	100.0	93	9	US-09-975-502A-5	Sequence 5, Appli
3	475	100.0	93	9	US-10-042-945-27	Sequence 27, Appl
4	475	100.0	93	9	US-09-905-673-1	Sequence 1, Appli
5	475	100.0	93	9	US-09-905-673-34	Sequence 34, Appl
6	475	100.0	93	10	US-09-757-417-27	Sequence 27, Appl
7	475	100.0	93	10	US-09-934-054-3	Sequence 3, Appli
8	475	100.0	93	10	US-09-934-054-10	Sequence 10, Appl
9	475	100.0	93	12	US-10-007-805-503	Sequence 503, App
10	475	100.0	101	9	US-10-042-945-58	Sequence 58, Appl
11	475	100.0	102	9	US-10-042-945-59	Sequence 59, Appl
12	475	100.0	132	9	US-10-042-945-47	Sequence 47, Appl
13	475	100.0	132	10	US-09-757-417-47	Sequence 47, Appl
14	475	100.0	182	9	US-09-905-673-60	Sequence 60, Appl
15	475	100.0	410	9	US-10-076-622-495	Sequence 495, App
16	475	100.0	410	12	US-10-007-805-495	Sequence 495, App
17	475	100.0	477	9	US-09-905-673-67	Sequence 67, Appl
18	475	100.0	743	9	US-10-076-622-494	Sequence 494, App
19	475	100.0	743	12	US-10-007-805-494	Sequence 494, App
20	475	100.0	1095	9	US-10-076-622-493	Sequence 493, App
21	475	100.0	1095	12	US-10-007-805-493	Sequence 493, App
22	474	99.8	93	9	US-09-905-673-30	Sequence 30, Appl
23	471	99.2	93	9	US-09-905-673-51	Sequence 51, Appl
24	471	99.2	93	9	US-09-905-673-52	Sequence 52, Appl
25	471	99.2	93	9	US-09-905-673-53	Sequence 53, Appl
26	471	99.2	182	9	US-09-905-673-61	Sequence 61, Appl
27	468	98.5	93	9	US-09-905-673-29	Sequence 29, Appl
28	466	98.1	93	9	US-09-905-673-31	Sequence 31, Appl
29	463	97.5	93	9	US-09-905-673-32	Sequence 32, Appl
30	463	97.5	93	9	US-09-905-673-33	Sequence 33, Appl
31	448.5	94.4	90	9	US-09-905-673-28	Sequence 28, Appl
32	448.5	94.4	90	9	US-09-905-673-54	Sequence 54, Appl
33	414	87.2	80	9	US-10-042-945-57	Sequence 57, Appl
34	414	87.2	95	9	US-10-042-945-56	Sequence 56, Appl
35	399	84.0	145	9	US-09-905-673-63	Sequence 63, Appl
36	386	81.3	75	10	US-09-110-716-41	Sequence 41, Appl
37	386	81.3	76	9	US-10-042-945-60	Sequence 60, Appl
38	386	81.3	145	9	US-09-905-673-62	Sequence 62, Appl
39	386	81.3	460	9	US-09-905-673-66	Sequence 66, Appl
40	281	59.2	95	10	US-09-110-716-31	Sequence 31, Appl
41	281	59.2	95	10	US-09-985-911-6	Sequence 6, Appli
42	272	57.3	93	9	US-10-227-884-58	Sequence 58, Appl
43	272	57.3	93	9	US-10-230-163-58	Sequence 58, Appl
44	272	57.3	93	9	US-10-218-631-58	Sequence 58, Appl
45	272	57.3	93	9	US-10-230-338-58	Sequence 58, Appl

ALIGNMENTS

RESULT 1
US-10-076-622-503
; Sequence 503, Application US/10076622
; Publication No. US20030023036A1
; GENERAL INFORMATION:
; APPLICANT: Houghton, Raymond L.
; APPLICANT: Sleath, Paul R.
; APPLICANT: Persing, David H.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF BREAST CANCER
; FILE REFERENCE: 210121.470C11
; CURRENT APPLICATION NUMBER: US/10/076,622
; CURRENT FILING DATE: 2002-02-13
; NUMBER OF SEQ ID NOS: 627
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 503
; LENGTH: 93
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-076-622-503

Query Match 100.0%; Score 475; DB 9; Length 93;
Best Local Similarity 100.0%; Pred. No. 6.2e-44;
Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
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RESULT 2
US-09-975-502A-5
; Sequence 5, Application US/09975502A
; Publication No. US20030044859A1
; GENERAL INFORMATION:
; APPLICANT: Abbott Laboratories
; APPLICANT: Henslee, Jerry G.
; APPLICANT: Friedman, Paula N.

```
;  TITLE OF INVENTION: REAGENTS AND METHODS USEFUL FOR
;  TITLE OF INVENTION:  DETECTING DISEASES OF THE BREAST
;  FILE REFERENCE: 5972.US.P7
;  CURRENT APPLICATION NUMBER: US/09/975,502A
;  CURRENT FILING DATE:  2002-06-10
;  PRIOR APPLICATION NUMBER: US 09/467,602
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: US 09/215,818
;  PRIOR FILING DATE: 1998-12-18
;  PRIOR APPLICATION NUMBER: US 08/912,276
;  PRIOR FILING DATE: 1997-08-15
;  PRIOR APPLICATION NUMBER: US 08/697,105
;  PRIOR FILING DATE: 1996-08-19
;  PRIOR APPLICATION NUMBER: US 08/912,149
;  PRIOR FILING DATE: 1997-08-15
;  PRIOR APPLICATION NUMBER: US 08/697,106
;  PRIOR FILING DATE: 1996-08-19
;  NUMBER OF SEQ ID NOS: 8
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 5
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo sapiens
  09-975-502A-5

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RESULT 3
US-10-042-945-27
; Sequence 27, Application US/10042945
; Publication No. US20030045468A1
; GENERAL INFORMATION:
;  APPLICANT: Fling, Steven P.
;  APPLICANT:  Foy, Teresa M.
;  APPLICANT:  Clapper, Jonathan D.
;  APPLICANT:  Wang, Aijun
;  APPLICANT:  Johnson, Jeffrey C.
;  APPLICANT:  McNeill, Patricia D.
;  APPLICANT:  Sutherland, R. Alec
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY,
   TITLE OF INVENTION:  DIAGNOSIS AND MONITORING OF BREAST CANCER
   FILE REFERENCE: 210121.479C3
;  CURRENT APPLICATION NUMBER: US/10/042,945
;  CURRENT FILING DATE:  2002-01-08
;  NUMBER OF SEQ ID NOS: 69
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 27
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo sapien
US-10-042-945-27

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  Best Local Similarity   100.0%;  Pred. No. 6.2e-44;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
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Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 4
US-09-905-673-1
; Sequence 1, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-905-673-1

  Query Match             100.0%;  Score 475;  DB 9;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 6.2e-44;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 5
US-09-905-673-34
; Sequence 34, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
;  APPLICANT: Dillon, Davin C.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
;  TITLE OF INVENTION:  DIAGNOSIS AND THERAPY
;  FILE REFERENCE: 210121.498C1
;  CURRENT APPLICATION NUMBER: US/09/905,673
;  CURRENT FILING DATE:  2001-07-13
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 34
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-673-34

  Query Match             100.0%;  Score 475;  DB 9;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 6.2e-44;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 6
US-09-757-417-27
; Sequence 27, Application US/09757417
; Patent No. US20020082216A1
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Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 9
US-10-007-805-503
; Sequence 503, Application US/10007805
; Patent No. US20020150581A1
; GENERAL INFORMATION:
;  APPLICANT: Jiang, Yuqiu
;  APPLICANT:  Dillon, Davin C.
;  APPLICANT:  Mitcham, Jennifer L.
;  APPLICANT:  Xu, Jiangchun
;  APPLICANT:  Harlocker, Susan L.
;  APPLICANT:  Hepler, William T.
;  APPLICANT:  Henderson, Robert A.
;  APPLICANT:  Fanger, Gary R.
;  APPLICANT:  Vedvick, Thomas S.
;  APPLICANT:  McNeill, Patricia D.
;  APPLICANT:  Durham, Margarita
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
   TITLE OF INVENTION:  AND DIAGNOSIS OF BREAST CANCER
   FILE REFERENCE: 210121.470C10
   CURRENT APPLICATION NUMBER: US/10/007,805
;  CURRENT FILING DATE:  2001-12-07
;  NUMBER OF SEQ ID NOS: 593
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 503
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-007-805-503

  Query Match           100.0%;  Score 475;  DB 12;  Length 93;
  Best Local Similarity  100.0%;  Pred. No. 6.2e-44;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 10
US-10-042-945-58
; Sequence 58, Application US/10042945
; Publication No. US20030045468A1
   GENERAL INFORMATION:
   APPLICANT: Fling, Steven P.
;  APPLICANT:  Foy, Teresa M.
;  APPLICANT:  Clapper, Jonathan D.
;  APPLICANT:  Wang, Aijun
;  APPLICANT:  Johnson, Jeffrey C.
;  APPLICANT:  McNeill, Patricia D.
;  APPLICANT:  Sutherland, R. Alec
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY,
;  TITLE OF INVENTION:  DIAGNOSIS AND MONITORING OF BREAST CANCER
;  FILE REFERENCE: 210121.479C3
;  CURRENT APPLICATION NUMBER: US/10/042,945
;  CURRENT FILING DATE:  2002-01-08
;  NUMBER OF SEQ ID NOS: 69
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 58
;   LENGTH: 101
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-042-945-58

  Query Match           100.0%;  Score 475;  DB 9;  Length 101;
  Best Local Similarity  100.0%;  Pred. No. 6.9e-44;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 11
US-10-042-945-59
; Sequence 59, Application US/10042945
; Publication No. US20030045468A1
; GENERAL INFORMATION:
;  APPLICANT: Fling, Steven P.
;  APPLICANT:  Foy, Teresa M.
;  APPLICANT:  Clapper, Jonathan D.
;  APPLICANT:  Wang, Aijun
;  APPLICANT:  Johnson, Jeffrey C.
;  APPLICANT:  McNeill, Patricia D.
;  APPLICANT:  Sutherland, R. Alec
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY,
;  TITLE OF INVENTION:  DIAGNOSIS AND MONITORING OF BREAST CANCER
;  FILE REFERENCE: 210121.479C3
;  CURRENT APPLICATION NUMBER: US/10/042,945
;  CURRENT FILING DATE:  2002-01-08
;  NUMBER OF SEQ ID NOS: 69
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 59
;   LENGTH: 102
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-042-945-59

  Query Match           100.0%;  Score 475;  DB 9;  Length 102;
  Best Local Similarity  100.0%;  Pred. No. 6.9e-44;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      10 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 69

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||||
Db      70 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 102


RESULT 12
US-10-042-945-47
; Sequence 47, Application US/10042945
; Publication No. US20030045468A1
; GENERAL INFORMATION:
;  APPLICANT: Fling, Steven P.
;  APPLICANT:  Foy, Teresa M.
;  APPLICANT:  Clapper, Jonathan D.
;  APPLICANT:  Wang, Aijun
;  APPLICANT:  Johnson, Jeffrey C.
;  APPLICANT:  McNeill, Patricia D.
;  APPLICANT:  Sutherland, R. Alec
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY,
;  TITLE OF INVENTION:  DIAGNOSIS AND MONITORING OF BREAST CANCER
;  FILE REFERENCE: 210121.479C3
;  CURRENT APPLICATION NUMBER: US/10/042,945
;  CURRENT FILING DATE:  2002-01-08
;  NUMBER OF SEQ ID NOS: 69
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 47
;   LENGTH: 132
;   TYPE: PRT
;   ORGANISM: Homo sapiens
```

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; GENERAL INFORMATION:
;  APPLICANT: Fanger, Gary R.
;  APPLICANT:  Foy, Theresa M.
;  APPLICANT:  Houghton, Raymond L.
;  APPLICANT:  Reed, Steven G.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
;  TITLE OF INVENTION:  THERAPY, DIAGNOSIS AND MONITORING OF BREAST CANCER
;  FILE REFERENCE: 210121.479C1
;  CURRENT APPLICATION NUMBER: US/09/757,417
;  CURRENT FILING DATE:  2001-01-08
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 27
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo sapien
S-09-757-417-27

  Query Match             100.0%;  Score 475;  DB 10;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 6.2e-44;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 7
US-09-934-054-3
; Sequence 3, Application US/09934054
; Patent No. US20020107385A1
;   GENERAL INFORMATION:
;        APPLICANT: Akerblom, Ingrid E.
;                   Hillman, Jennifer L.
;                   Murry, Lynn E.
;                   Goli, Surya K.
;                   Hawkins, Phillip R.
;        TITLE OF INVENTION: BREAST TUMOR SPECIFIC PROTEINS
;        NUMBER OF SEQUENCES: 13
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Fish & Richardson P.C.
;             STREET: 2200 Sand Hill Road, Suite 100
;             CITY: Menlo Park
;             STATE: CA
;             COUNTRY: USA
;             ZIP: 94025-6936
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/934,054
;             FILING DATE: 21-Aug-2001
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/747,547
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Billings, Lucy J.
;             REGISTRATION NUMBER: 36,749
;             REFERENCE/DOCKET NUMBER: PF-0077 US
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (650) 855-0555
;             TELEFAX: (650) 845-4166
;   INFORMATION FOR SEQ ID NO: 3:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 93 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: double
;             TOPOLOGY: linear
;        MOLECULE TYPE: <Unknown>
;        SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-934-054-3

  Query Match             100.0%;  Score 475;  DB 10;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 6.2e-44;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93


RESULT 8
US-09-934-054-10
; Sequence 10, Application US/09934054
; Patent No. US20020107385A1
;   GENERAL INFORMATION:
;        APPLICANT: Akerblom, Ingrid E.
;                   Hillman, Jennifer L.
;                   Murry, Lynn E.
;                   Goli, Surya K.
;                   Hawkins, Phillip R.
;        TITLE OF INVENTION: BREAST TUMOR SPECIFIC PROTEINS
;        NUMBER OF SEQUENCES: 13
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Fish & Richardson P.C.
;             STREET: 2200 Sand Hill Road, Suite 100
;             CITY: Menlo Park
;             STATE: CA
;             COUNTRY: USA
;             ZIP: 94025-6936
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/934,054
;             FILING DATE: 21-Aug-2001
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/747,547
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Billings, Lucy J.
;             REGISTRATION NUMBER: 36,749
;             REFERENCE/DOCKET NUMBER: PF-0077 US
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (650) 855-0555
;             TELEFAX: (650) 845-4166
;   INFORMATION FOR SEQ ID NO: 10:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 93 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: double
;             TOPOLOGY: linear
;        MOLECULE TYPE: <Unknown>
;        SEQUENCE DESCRIPTION: SEQ ID NO: 10:
US-09-934-054-10

  Query Match             100.0%;  Score 475;  DB 10;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 6.2e-44;
  Matches   93;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
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US-10-042-945-47

Query Match 100.0%; Score 475; DB 9; Length 132;
Best Local Similarity 100.0%; Pred. No. 9.5e-44;
Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      40 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 99

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db     100 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 132
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RESULT 13
S-09-757-417-47
Sequence 47, Application US/09757417
; Patent No. US20020082216A1
; GENERAL INFORMATION:
; APPLICANT: Fanger, Gary R.
; APPLICANT: Foy, Theresa M.
; APPLICANT: Houghton, Raymond L.
; APPLICANT: Reed, Steven G.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
; TITLE OF INVENTION: THERAPY, DIAGNOSIS AND MONITORING OF BREAST CANCER
; FILE REFERENCE: 210121.479C1
; CURRENT APPLICATION NUMBER: US/09/757,417
; CURRENT FILING DATE: 2001-01-08
; NUMBER OF SEQ ID NOS: 49
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 47
; LENGTH: 132
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-757-417-47

Query Match 100.0%; Score 475; DB 10; Length 132;
Best Local Similarity 100.0%; Pred. No. 9.5e-44;
Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      40 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 99

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db     100 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 132
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RESULT 14
US-09-905-673-60
; Sequence 60, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
; APPLICANT: Dillon, Davin C.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
; TITLE OF INVENTION: DIAGNOSIS AND THERAPY
; FILE REFERENCE: 210121.498C1
; CURRENT APPLICATION NUMBER: US/09/905,673
; CURRENT FILING DATE: 2001-07-13
; NUMBER OF SEQ ID NOS: 67
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 60
; LENGTH: 182
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-905-673-60

Query Match 100.0%; Score 475; DB 9; Length 182;
Best Local Similarity 100.0%; Pred. No. 1.4e-43;
Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
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RESULT 15
US-10-076-622-495
; Sequence 495, Application US/10076622
; Publication No. US20030023036A1
; GENERAL INFORMATION:
; APPLICANT: Houghton, Raymond L.
; APPLICANT: Sleath, Paul R.
; APPLICANT: Persing, David H.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF BREAST CANCER
; FILE REFERENCE: 210121.470C11
; CURRENT APPLICATION NUMBER: US/10/076,622
; CURRENT FILING DATE: 2002-02-13
; NUMBER OF SEQ ID NOS: 627
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 495
; LENGTH: 410
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-076-622-495

Query Match 100.0%; Score 475; DB 9; Length 410;
Best Local Similarity 100.0%; Pred. No. 3.8e-43;
Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
           |||||||||||||||||||||||||||||||||
Db      61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
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Search completed: April 24, 2003, 16:21:58
Job time : 15.7377 secs

Db 61 GVKRCTDQMSLQKRSLIAEVLV...KCSV 90

RESULT 3
US-09-905-673-35
; Sequence 35, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
; APPLICANT: Dillon, Davin C.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
; TITLE OF INVENTION: DIAGNOSIS AND THERAPY
; FILE REFERENCE: 210121.498C1
; CURRENT APPLICATION NUMBER: US/09/905,673
; CURRENT FILING DATE: 2001-07-13
; NUMBER OF SEQ ID NOS: 67
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 35
; LENGTH: 90
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-905-673-35

BU101
SEQ ID#6

Query Match 100.0%; Score 450; DB 9; Length 90;
Best Local Similarity 100.0%; Pred. No. 2.2e-45;
Matches 90; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
Db 1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
Db 61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90

RESULT 4
09-825-301-77
Sce 77, Application US/09825301

RESULT 4
US-09-905-673-1
; Sequence 1, Application US/09905673
; Publication No. US20030059432A1
; GENERAL INFORMATION:
; APPLICANT: Dillon, Davin C.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: LIPOPHILIN COMPLEXES FOR USE IN CANCER
; TITLE OF INVENTION: DIAGNOSIS AND THERAPY
; FILE REFERENCE: 210121.498C1
; CURRENT APPLICATION NUMBER: US/09/905,673
; CURRENT FILING DATE: 2001-07-13
; NUMBER OF SEQ ID NOS: 67
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
; LENGTH: 93
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-905-673-1

mammaglobin
SEQ ID#5

Query Match 100.0%; Score 475; DB 9; Length 93;
Best Local Similarity 100.0%; Pred. No. 6.2e-44;
Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
Db 1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
Db 61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93

Sequence alignment between Applicants' SEQ ID #6 & 5 and US20030059432A1, respectively

mammaglobin (SEQ ID#5)

RESULT 2
AAW59777
ID AAW59777 standard; Protein; 93 AA.
XX
AC AAW59777;
XX
DT 12-OCT-1998 (first entry)
XX
DE Amino acid sequence of the human steroid binding protein C2.
XX
KW Human steroid-binding protein C2; hSBP2; hSBP1; breast cancer; probe;
KW gene therapy vector; ribozyme; probe; hybridisation; amplification;
KW antibody; immunoassay.
XX
OS Homo sapiens.
XX
PN WO9821331-A1.
XX
PD 22-MAY-1998.
XX
PF 07-NOV-1997; 97WO-US20674.
XX
PR 12-NOV-1996; 96US-0747547.
XX
PA (INCY-) INCYTE PHARM INC.
XX
PI Akerblom IE, Goli SK, Hawkins PR, Hillman JL, Murry LE;
XX
DR WPI; 1998-297935/26.
DR N-PSDB; AAV41580.
XX
PT New human steroid binding proteins C1 and C2 - useful for, e.g.
PT diagnosis, monitoring and treating breast cancer, and for drug
PT screening
XX
PS Claim 12; Fig 2; 70pp; English.
XX
CC This is the amino acid sequence of the human steroid-binding protein
CC C2 (hSBP2) used in the method of the invention for the diagnosis,

CC monitoring and treatment of breast cancer. HSBP1 and hSBP2 are useful
CC as markers for breast cancer, i.e. measuring levels of hSBP1 and hSBP2
CC used for diagnosis or monitoring the disease, to identify subjects
CC at risk and to discriminate between different forms of cancer for
CC selection of appropriate therapies. They may also be used for drug
CC screening. Nucleic acids encoding hSBP1 and hSBP2 can be used in gene
CC therapy vectors to over express the steroid-binding proteins, preventing
CC binding of steroids, or antisense sequences, ribozymes. Their nucleic
CC acids can also be used for the diagnosis and monitoring (by quantifying
CC expression of hSBP), as source of probes for hybridisation and
CC amplification of genomic or related sequences for studying regulation of
CC gene function and for mapping the genomic sequence. Antibodies are used
CC as diagnostic reagents in standard immunoassays for hSBP.
XX
SQ Sequence 93 AA;

  Query Match   100.0%; Score 475; DB 19; Length 93;
  Best Local Similarity 100.0%; Pred. No. 2.9e-47;
  Matches 93; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy   1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1 MKLLMVLMLAALSQHCYAGSGCPLLENVISKTINPQVSKTEYKELLQEFIDDNATTNAID 60

Qy   61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93
          |||||||||||||||||||||||||||||||||
Db   61 ELKECFLNQTDETLSNVEVFMQLIYDSSLCDLF 93

RESULT 3

B1101 (SEQ ID #6)

RESULT 2
AAW59776
ID AAW59776 standard; Protein; 90 AA.
XX
AC AAW59776;
XX
DT 12-OCT-1998 (first entry)
XX
DE Amino acid sequence of the human steroid binding protein C1.
XX
KW Human steroid-binding protein C1; hSBP1; hSBP2; breast cancer; probe;
KW gene therapy vector; ribozyme; probe; hybridisation; amplification;
KW antibody; immunoassay.
XX
OS Homo sapiens.
XX
PN WO9821331-A1.
XX
PD 22-MAY-1998.
XX
PF 07-NOV-1997; 97WO-US20674.
XX
PR 12-NOV-1996; 96US-0747547.
XX
PA (INCY-) INCYTE PHARM INC.
XX
PI Akerblom IE, Goli SK, Hawkins PR, Hillman JL, Murry LE;

DR WPI; 1998-297935/26.
DR N-PSDB; AAV41579.
XX
PT New human steroid binding proteins C1 and C2 - useful for, e.g.
PT diagnosis, monitoring and treating breast cancer, and for drug
PT screening
XX
PS Claim 1; Fig 1; 70pp; English.
XX
CC This is the amino acid sequence of the human steroid-binding protein
CC C1 (hSBP1) used in the method of the invention for the diagnosis,
CC monitoring and treatment of breast cancer. HSBP1 and hSBP2 are useful
CC as markers for breast cancer, i.e. measuring levels of hSBP1 and hSBP2
CC used for diagnosis or monitoring the disease, to identify subjects
CC at risk and to discriminate between different forms of cancer for
CC selection of appropriate therapies. They may also be used for drug
CC screening. Nucleic acids encoding hSBP1 and hSBP2 can be used in gene
CC therapy vectors to overexpress the steroid-binding proteins, preventing
CC binding of steroids, or antisense sequences, ribozymes. Their nucleic
CC acids can also be used for the diagnosis and monitoring (by quantifying
CC expression of hSBP), as source of probes for hybridisation and
CC amplification of genomic or related sequences for studying regulation of
CC gene function and for mapping the genomic sequence. Antibodies are used
CC as diagnostic reagents in standard immunoassays for hSBP.
XX
SQ Sequence 90 AA;

  Query Match   100.0%; Score 450; DB 19; Length 90;
  Best Local Similarity 100.0%; Pred. No. 9.2e-51;
  Matches 90; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy   1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1 MKLSVCLLLVTLALCCYQANAEFCPALVSELLDFFFISEPLFKLSLAKFDAPPEAVAAKL 60

Qy   61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90
          ||||||||||||||||||||||||||||||
Db   61 GVKRCTDQMSLQKRSLIAEVLVKILKKCSV 90